



Annual Report of Accomplishments and Results

Fiscal Year 2006: October 1, 2005–September 30, 2006

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**Based on a Plan of Work for Federal Fiscal Years
2000–2006**

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Part I: Overview and Executive Summary

The West Virginia University Extension Service (WVU-ES) submits the following report of its major program accomplishments for fiscal year (FY) 2006. This summary reflects accomplishments and impacts for a number of federal, state, county, grant, and fee-funded programs, many of which are non-Cooperative Extension efforts not supported by U.S. Department of Agriculture (USDA)-Cooperative State Research, Education, and Extension Service (CSREES) funding.

USDA's review of last year's accomplishment report indicated that the impact statements were useful. Program outcomes and impacts are noted again in this year's report.

This report incorporates feedback received from the 2001 USDA-CSREES Review Team regarding stakeholders' input and use of data.

Who We Are and What We Do

Consistent with the concept of the engaged university, West Virginia University (WVU) is strongly committed to becoming of greater value to the state and nation. As West Virginia University's primary, geographically distributed, public service-oriented academic unit, Extension actively partners with other University colleges, schools, regional campuses, and distributed (distance) educational delivery systems to meet the changing lifelong educational needs of West Virginians.

Through strategic partnerships with higher and basic education, government, and private and nonprofit organizations, WVU-ES has committed to five strategic priorities based on state priorities:

1. Developing more—and more capable—leaders at the community, organization, and state levels
2. Helping create more—and more successful—rural and community-based businesses
3. Improving the successful development of youth
4. Increasing the capabilities and readiness of West Virginia's future and current workforce
5. Being a direct provider of—and critical partner in—delivering education that ensures healthier West Virginians

Extension faculty and staff invest time, expertise, and efforts on these five areas of strategic focus. The initiatives represent how we in Extension apply our unique expertise to benefit the Mountain State.

Challenges

In Extension, we acknowledge that we cannot answer every question or address the state's critical issues alone. Our greatest asset is our ability to bring people and groups together, to use the knowledge and the research of the University as our foundation, and to find innovative solutions to the unique and varied needs among West Virginia's people and communities. However, we face increased expectations from clients but have fewer resources. We are approaching this challenge in several ways.

- Extending our capacities to deliver programs. Since 1996, Extension has increased direct client contacts counted from 122,225 to 616,830 (partly due to improved counting system).
 - WVU-ES reduced regular full-time employees and increased seasonal employees.
 - While our staffing formula calls for 22 single-agent counties, we have been able to mobilize supplemental funding to reduce the actual number of single-agent counties to 12.

- WVU-ES increased county funding from \$3.2 million to \$3.9 million.
 - WVU-ES had stable, flat federal and state funding.
 - WVU-ES had significant increase in sponsored programs (from \$996,437 active multiyear in 1997 to \$5,400,000 active multiyear in 2006).
 - WVU-ES improved recruitment and retention of county agents by funding two years of across-the-board raises of \$500 per year (06-07 and 07-08) on top of existing merit raises and increasing minimum and entry level salaries for agents to \$37,000 in 07-08.
- Continuing to move toward a student-centered climate in Extension. The Extension System is deeply connected with strategic partners at WVU (e.g., Health Sciences Center, Davis College of Agriculture, and School of Applied Social Sciences in the Eberly College of Arts and Sciences), state and federal agencies, and key stakeholder groups.
 - Continuing to enhance our working relationship with West Virginia State University. The West Virginia Legislature, Higher Education Commission, and representatives of USDA-CSREES have been and are working with the two institutions to codify and improve their collaborative efforts.
 - Staying attuned to state and community needs through broader Extension Service. We are helping to create a climate more open to inventing new models for doing our work and involving stakeholders in (a) review of vision and mission and (b) strategic plan implementation (consistent with national benchmarks and changing resource conditions; e.g., Kellogg Commission reports, 21st Century Vision for National Cooperative Extension System, WVU Compact with the state of West Virginia).
 - Moving resources to the field. WVU Extension reorganized in 2003 by decreasing the number of administrators and the amount of central administrative support and moving the funds involved into field and program positions. We have received funds to match a computer order for replacing old computers in the field and also central WVU funds for creating two new Extension agent faculty positions.
 - Improving the programming of Jackson's Mill in areas consistent with its traditional mission to increase the proportion of its budget supported by users and outside sources. As a direct result of WVU advocacy, the West Virginia Legislature provided \$1.5 million in funding. Along with this funding, WVU provided \$1.5 million of its own funding to totally renovate the Mount Vernon Dining Hall at WVU Jackson's Mill. Along with this project, Extension has many facility upgrades either complete or in process involving more than \$432,000 in University and private funding in the past year.
 - Celebrating the 85th year of WVU Jackson's Mill's existence and its first year of being accredited by the American Camp Association in 2006.
 - Improving the programming of Jackson's Mill in areas consistent with its traditional mission to increase the proportion of its budget supported by users and outside sources. As a direct result of WVU advocacy, the West Virginia Legislature provided a one-time grant of \$1 million for repairs and renovations to Jackson's Mill.
 - Reviewing budget status and operational efficiencies.

Extension program and support units have reduced staff to manage Extension's budget and anticipated future budget constraints. This has been accomplished through making reassignments, merging assignments (e.g., multicounty), and closing vacancies. Every vacancy is carefully scrutinized, and only those positions that address critical needs are advertised.

In 2003, WVU-ES recognized the need to review staffing of its 55 county offices and to establish a process and criteria for staffing and funding those positions. Establishing a statewide expectation for county funding levels that would be phased in over three years was particularly important. Following discussion among faculty, staff, and key stakeholders, WVU-ES has adopted guidelines. This county staffing plan identifies counties to receive one, two, or three

agents based upon demographic parameters. WVU fully supports a county's first agent. Counties provide \$15,000 toward salaries of second and third agents if allocated under the plan. Counties also supply a minimum of one office support person, space for the county office, and current expenses for such items as travel and telephone.

As noted above, WVU is working to significantly increase county funding of agent positions over three years. WVU has also begun a long-term advocacy program to increase the levels of state support from the West Virginia legislature. We continue to work with our federal partners to seek increased funding. All programs and staffing decisions will be consistent with Extension's Strategic Plan.

One thing has changed in WVU Extension's 85 years of service: More colleges and schools, agencies, businesses, and nonprofit, government, and human services organizations are active partners in our work. What has not changed is our unique and powerful partnership with the people of the state and our commitment to improve the lives and communities of West Virginians.

Stakeholder Input Process

Statewide, county-by-county public forums and mail surveys in 1999 showed that West Virginians are most concerned about the economy and job-related issues. Strong interest in the economy and young people attests to a vision for the future and a desire to ensure progress and growth. This information served as a basis for the 2000–2004 five-year federal Plan of Work and the 2005–2006 update.

Among the items considered most important are:

- Helping both young people and adults to obtain the training necessary for current and emerging jobs
- Preserving our natural resources while seeking ways to accommodate both business interests and environmental concerns
- Attracting new business and expanding local enterprises
- Promoting and enabling education beyond high school for young people, often a path to suitable, stable employment
- Teaching young people, including those at risk, to make realistic decisions for their lives
- Expanding youth-oriented educational programs, such as 4-H
- Assessing local needs with local groups and individuals when county agent vacancies occur

An ongoing system of securing stakeholder input into program planning and implementation, along with quality assessment, has been and continues to be a primary commitment for WVU Extension. Stakeholder input is gathered annually through several methods. One regular approach to assessing community needs and programs is to seek input from members of state-mandated County Extension Service Committees. In each of West Virginia's 55 counties, eight-member committees serve three primary functions: (1) to approve annually the employment of Extension county employees; (2) to help secure financial support for the Extension Service from the county Board of Education and the County Commission, and (3) to give guidance and support for local Extension Service programming (W.Va. State Code Chapter 19-8-1).

Committee membership, as designated by law, consists of the following: the president of the county farm bureau; the president of the county Extension Homemakers' Council; the president of the county 4-H leaders' association; a county commissioner designated by the president of the county commission; a member of the board of education designated by the president of the county board of education; a county representative of the Grange; and two members who are

residents of the county to be appointed by the West Virginia University Board of Governors (BOG). If any of the above-named organizations does not exist in the county, the WVU BOG may appoint an additional member for each such vacancy.

Additional input is gathered from a number of program-specific advisory committees; e.g., the Institute for Labor Studies and Research Advisory Committee, 4-H Funds Advisory Committee, and Extension Service Visiting Committee. Program recommendations are also solicited during farm family risk management educational dinners where inquiries are made about future program topics.

Additional information regarding the process used to identify stakeholders and how the collected information was used is covered in the “Program Review Process” section.

Resources

WVU Extension’s FY2006 operating budget was \$27.08 million*. Federal, state, and county appropriations provide base funding for Extension infrastructure and program efforts. The operating budget breakdown shows 17 percent federal funds (\$4.83 million including 3b and 3c, Expanded Food and Nutrition Education Program, and 3d)**; 32 percent state funds (\$8.81 million); 13 percent county funds (\$3.6 million); 26 percent grants and contracts (\$5.4 million); and 12 percent user fees and WVU Foundation (\$4.45 million). Of the total WVU Extension budget (which includes funding for numerous non-Cooperative Extension programs), 83 percent is from nonfederal/USDA-CSREES funding.

*Does not include Fire Academy, Jackson’s Mill cottage renovation funds, Life Safety, pool, state fringes, or WVU Foundation endowed accounts.

**The actual FY2006 federal 3b, 3c appropriation to West Virginia was \$3.54 million.

Strategic Plan Implementation and Program Review Process

WVU Extension is deepening its strategic planning by systematically implementing its general strategic plan through several policy efforts, including major program reviews. These efforts apply the strategic plan as a benchmark for conducting program review and policy development to ensure that the strategic plan translates into local programming.

1. County Staffing Guidelines

As of 2003, county staffing patterns were a patchwork of historic negotiations with individual counties over many years. Extension polled a sample of faculty members to generate a county staffing guideline to govern staffing for each county. Principles include:

- A minimum of one county agent in each of West Virginia’s 55 counties
- Designation of counties that merit two or three agents
- Counties pay 33 percent of salaries of second or third agents
- Additional agents paid 100 percent by counties

2. Program Specialist Guidelines

Multiple consultations with faculty and staff resulted in a program specialist guideline that identifies “Core Specialists.” These represent positions that the organization deems to be essential functions for Extension over at least 10 years. Some of these newly designated core positions are currently vacant and will become priorities to fill as resources become available. Currently filled specialist positions that are not core will not be filled when they become vacant.

3. Core County Functions

In response to the significant variation in faculty staffing patterns in West Virginia counties, WVU has developed and implemented a comprehensive listing of functions and programs that will be accomplished in each West Virginia county. This list informs our stakeholders as well as faculty of our minimum program commitments to each and every West Virginia county. It reflects our strategic thinking about who are.

4. Program Teams

Extension now conducts its major program development and coordination through program teams. These 19 teams are co-led by a specialist and a county agent. Each team generates an annual plan of work (Team Assignment Document) and reports yearly against this plan of work.

5. Findings from the external study of West Virginia's 4-H Youth Development Program continue to be used in program development and implementation efforts. These have included ongoing development of training programs on risk management in camping, which resulted in the completion of detailed risk management plans for all county, regional, and state 4-H camping programs. Work has also been done on the 4-H curriculum offerings to ensure that best practices in youth development are at the core of all materials and methodologies. Advisory groups are being formed to help ensure the quality of Extension's program offerings to West Virginia youth.

6. The USDA Office of Civil Rights responded to a 2002 complaint alleging that the WVU-ES discriminated, misused, and misinterpreted Native American Indian imagery and customs in its 4-H camping program. In its response, that office found no evidence of discrimination but urged WVU-ES to continue to improve the quality and appropriateness of Native American Indian imagery and customs used in its camps.

7. Nationally eminent faculty and administrators from three other universities completed an external program review of the Institute for Labor Studies and Research (ILSR). Faculty and stakeholders are working to implement the results of the review in a new strategic plan for ILSR.

Multistate and Integrated Program Summaries

A number of Extension programs involve other WVU colleges and other institutions. Integrated programs with the WVU Davis College of Agriculture, Forestry, and Consumer Sciences and the West Virginia Agricultural and Forestry Experiment Station are conducted through 16 joint-faculty appointments. In addition to the programs conducted by these joint appointments, numerous faculty, including county Extension faculty, are engaged in collaborative programs with the Davis College. Other integrated programs include youth programs in horticulture, land judging, animal judging, and forestry.

West Virginia University and West Virginia State University (WVSU), an 1890 land-grant institution, entered into a voluntary agreement in 1997 to create the West Virginia Association of Land-Grant Institutions. This collaboration of the state's two land-grant institutions is committed to providing education that will help the citizens of West Virginia improve their lives and communities. In 2005, the two institutions signed West Virginia's first "Cooperative Agreement for a Comprehensive Program of Agricultural and Forestry Research and Extension." This agreement was submitted to and accepted by USDA's Cooperative State Research, Education, and Extension Service (CSREES). This agreement formalized mechanisms for cooperation and nonduplication of services by the two extension services. Important items include consultation on the placement of field faculty and regular consultation between the two organizations.

In response to a request from the West Virginia Chancellor of Higher Education, WVU and WVSU are designing a plan for cooperation and collaboration between the institutions. The West

Virginia Legislature set a goal of ensuring that the programs are complementary and not duplicative.

Many Extension faculty are engaged in multistate programs, including the Mid-Atlantic Crop School; Mid-Atlantic Beef Quality Assurance; Crop Advisory Board; Northeast Master Gardeners program; the Middle Atlantic Consortium of Dairy Extension Educators; Children, Youth, and Families at Risk; Family Nutrition Programs; Diabetes Education; Virtual Institute for Community Development; Healthy People Healthy Communities; Pharmacy/Extension Initiatives; Northeast Regional Agricultural Engineering Service; and other regional initiatives such as Integrated Pest Management, Water Quality, Livestock Marketing, Forestry, Sustainable Agriculture, Risk Management, Tree Fruit, Small Animal, Child Care, Parenting, and Volunteer Leadership Development.

The funds attributed to integrated and multistate initiatives reflect only a percentage (not the total) of the federal 3b, 3c funds dedicated to the program. A total of \$3.54 million in 3b, 3c funds was allocated to West Virginia.

Evaluation of the Success of Multistate and Joint Activities

For fiscal year 2006, WVU-ES documented \$403,191 multistate activities using Smith-Lever 3B and C funds and \$469,089 for integrated activities. The current funding level has exceeded the originally planned five-year expenditure target of \$312,096 (based on doubling the 1997 baseline amount of \$149,000 from 4 percent to 8 percent).

Responses to the following questions are documented in previous sections: Challenges, Stakeholder Input Process, and Program Review:

Did the program address critical issues, including identification of stakeholders' concerns?

Did the program address the needs of the underserved and underrepresented?

Did the programs describe expected outcomes and impacts?

Did the programs result in improved programmatic efforts?

We continue efforts to identify multistate and integrated activities. The compelling force to do so is to enable WVU-ES to gain the greatest impact from its resources, resulting in ultimate benefit to the public it serves.

Supplement to the Annual Report of Accomplishments and Results Multistate Extension Activities and Integrated Activities

(Multistate & Integrated POW)

Program/Activity	March, 2006	March, 2006	March, 2006	March, 2006	March, 2006		
	Revised	Revised	Revised	Revised	Revised		
Actual Expenditures	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006
Multistate Extension Activities							
Agriculture General	80000	80000	90000	90000	100000	104344	81871
Youth Agriculture	5000	5000	5000	5000	5000	5226	5533
Livestock/Wildlife/Poultry/Aqua Mkt	15000	15000	15000	15000	15000	16602	17711
Grassland Management	20000	20000	20000	20000	20000	20274	21243
Horticulture	15000	15000	15000	15000	15000	18227	19634
Forestry/Wood Products	6000	6000	6000	6000	6000	6101	6397
Sustainable Ag/Land Reclamation	15000	15000	15000	15000	15000	18452	19549
Water Quality	10000	10000	10000	10000	10000	10961	11734
Pest Management	12000	12000	12000	12000	12000	12470	13793
Food Safety	10000	10000	10000	0	0	0	0
Diabetes Education/FSNEP	20000	20000	20000	20000	20000	19689	20651
Child Care Providers Training	7000	7000	7000	7000	7000	7535	9101
CYFAR	15000	15000	15000	15000	15000	13056	16448
Volunteer Leadership Development	15000	15000	15000	15000	15000	11679	12577
Community, Econ & Workforce Dev	80000	80000	90000	90000	90000	96132	77147
4-H Youth/Camping	8000	8000	9000	9000	9000	9839	39802
E-xtension	0	0	0	0	14986	30000	30000
Totals	333000	333000	354000	344000	368986	400587	403191
Integrated Activities							
	11/30/2004	11/30/2004					
	Revised	Revised					
	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006
Agriculture General	0	0	0	0	0	4489	6768
Youth Agriculture	0	0	0	0	0	10451	11066
Livestock/Wildlife/Poultry/Aqua Mkt	62000	62000	62100	62100	63000	91131	73228
Grassland Management	52000	52000	52500	52500	53000	30411	31864
Horticulture	31000	31000	31600	31800	32000	47996	62323
Forestry/Wood Projects	49600	49600	49750	50000	50500	29215	32403
Sustainable Ag/Land Reclamation	12400	12000	12000	11800	12000	35639	37586
Water Quality	71076	70975	71050	71500	72000	18268	19557
Pest Management	31000	31000	31500	31800	32000	39563	43232
Diabetes Education/FSNEP	0	0	0	0	0	19689	20651
Child Care Providers Training	0	0	0	0	0	7535	9101
CYFAR	0	0	2300	2300	0	57070	68113
Volunteer Leadership Development	0	0	0	0	0	14291	15386
Community, Econ Workforce Dev	0	0	0	0	0	104968	30912
4-H Youth/Camping	0	0	0	0	0	6560	6899
Totals	309076	308575	312800	313800	314500	517276	469089
FY Allocation base	3681367	3853256	3860756	3779819	3901203	3901203	3898067
8% Required	294509.4	308260.5	308860.5	302385.5	312096.2	312096.2	311845.4

Part II: FY 2005 Annual Report of Accomplishments and Results Program Summary

Goal 1: To achieve an agricultural production system that is highly competitive in the global economy

Executive Summary

Program Overview:

West Virginia is a state rich in natural resources and communities of people with strong rural values. The state's 21,000 farms are characterized as small, high-quality production units that must compete with national and global markets to survive. The annual gross receipts from agriculture now exceed \$420 million. Eighty percent of the state is forested, and more than 80 percent of those forests are privately owned. Businesses related to wildlife, tourism, and recreation and a growing rural nonfarm population increasingly influence Extension's program efforts. To meet the varied interests and problems of the state, educational and research efforts must assist clients to create sustainable agriculture and forestry production and marketing systems that are competitive, environmentally sound, and socially acceptable.

Major WVU-ES educational programs were developed and delivered throughout the state that related to beef and feeder cattle marketing, sheep and goat production and marketing, aquaculture, grassland management, home and commercial horticulture, farm and risk management, forestry production, management and marketing, and agricultural education. Agricultural profitability, aquaculture, and managing change in agriculture are the key themes represented in this goal. To a lesser extent, Extension delivered programs in areas of small farm viability, agricultural competitiveness, animal health, animal production efficiency, and niche marketing. These educational efforts included development of handbooks, spreadsheets, databases, newsletters, media articles, and programs. Other traditional means of providing agricultural education included workshops, skillathons, farm visits, field days, judging programs, exhibits, youth camps, and other youth programming. These programs have been well received and have resulted in increased knowledge, increased production, and profit gains while promoting good stewardship of the environment.

Plan of Work Performance Goals

- To enhance the reputation of West Virginia-raised feeder cattle, increase producer participation in various marketing options, assist producers in preparing for value-based marketing, and introduce marketing and sales alternatives to beef producers. Certification and educational programs were developed to teach best management practices.
- To build a superior genetic base in West Virginia beef cattle herds to provide high-quality animals for West Virginia markets.
- To improve grassland management techniques and procedures to increase profits enjoyed by West Virginia's farmers.
- To reduce hay production costs through management.
- To improve hay quality through harvest and storage management.
- To improve calf gain and health through pasture weaning.
- To reduce calf production costs and increase profitability in West Virginia beef cattle herds.
- To increase use of alternative herbicide application methods.

- To enhance the economic viability of vegetable, fruit, ornamental and speciality crop production in West Virginia through the development of effective marketing strategies.
- To develop new markets for horticultural crops and the expansion of existing markets.
- To increase the value of building healthy soil and the proper physical, chemical and biological properties needed by plants to sustain growth.
- To better address needs of the forest and forest products industry related to woodlot management, forest policy, urban forestry, and other forest-related environmental issues.
- To develop and improve the forestry economy and efficient use of West Virginia forests and land resources in a sustainable and responsible manner.
- To enhance the agricultural knowledge of West Virginia's youths and adults and provide them with the ability to make informed decisions related to the production of food and fiber while maintaining a high-quality environment.
- To increase youths' development of life skills through involvement in 4-H agricultural and natural resources subject matter programming.
- To increase the use of natural resources for recreational activities.
- To promote sustainable production practices on West Virginia farms.
- To enhance the infrastructure serving the aquaculture industry.
- To enhance existing markets for agricultural products, thereby increasing profitability of West Virginia agricultural enterprises.
- To increase awareness of management practices that help minimize risk while maximizing profits of West Virginia landowners.

Multistate/Integrated Activities – The West Virginia Beef Quality Assurance (BQA) program is a part of the Mid-Atlantic Beef Quality Assurance program. This is a collaborative effort by the following states: West Virginia, Pennsylvania, Maryland, Virginia, New York, Maine, and New Jersey. This has resulted in shared resource development, reduced production costs, and identification of common standards. Forestry programs are offered in collaboration with the Appalachian Hardwoods Center located in the WVU Davis College of Agriculture, Forestry, and Consumer Sciences.

Outputs

- Delivered 2,834 educational programs to 82,078 participants.
- Provided educational programs in grassland management, forest production and management, value-added marketing, beef production, horticulture production, small ruminant production and management, farm and risk management, and aquaculture production.
- Provided a marketing alternative for small beef production systems.
- Educated participants to develop least-cost and high-quality forage conditions.
- Responded to 974 requests for aquaculture production and pond management information.
- Provided aquaculture information at 391 sites.
- Developed new curriculum for pasture management, beef quality assurance, and youth agriculture.
- Delivered 1,425 educational agricultural programs, including public school programming efforts for 4-H and other youth and adult audiences.
- 20,000 copies of "Quality Assurance Cattle Handling Practices, Procedures and Facilities Assessment: A Farm and Ranch Producer Self-Evaluation" were distributed in 6 states.
- 4,000 "Chute Side Quality Defect and Culling Guides" were distributed in 4 states. This poster was also distributed to 110,000 households internationally.

Outcomes:

- 240 producers certified or recertified in BQA.
- 107 bulls were performance-evaluated and sold for \$260,545 (an average of \$2,435), resulting in net return after expenses of \$1,845 per head.
- Producers used performance-tested sires for the BQA program.
- 235 producers were trained and enrolled as direct data suppliers for the PVP (Process Verification Program) for AgInfoLink.
- 8,000 calves were tagged and eligible for PVP certification and are eligible for markets requiring USDA source and age verification.
- Three statewide beef quality assurance sales conducted for 14 cattle pools.
- 55 sheep and goat producers marketed cooperatively.
- Shepherds implemented predation management programs.
- 153 stakeholders were certified as Master Gardener Volunteers.
- New trout recipes were developed, tested, and sold at 5 statewide fairs and festivals.
- \$2,563,390 generated through the sale of youth livestock products.
- 72 youths involved in commercial horticulture production.
- 5,223 home gardeners used organic production techniques.
- Master Gardener training resulted in a 37-percent increase in participants' knowledge.

Impacts:

- 116 growers produced niche nursery and greenhouse crops.
- Improved weaning weight of calves marketed through pools by 76 pounds (\$89.33) for steers and 61 pounds (\$70.97) for heifers for a total of \$579,768.84.
- On average, total value added to cattle sold through the calf pools increased producers' per-calf net income by \$122.
- 934 producers in 17 counties reduced hay production costs through the adoption of at least one best management practice.
- 88 producers adopted a sustainable management plan.
- 521 producers improved calf gain and health through pasture weaning.
- The use of precision agriculture to apply nutrients to fields resulted in an increase of \$87 per acre in net return.
- 215 producers marketed 7,075 head through assurance sales.
- Selling wool cooperatively resulted in an extra 22 cents per pound of wool; overall, shepherds netted more than \$40,000 for wool or \$1.45 per ewe.
- Water quality was improved in 58 ponds.
- 101 ponds implemented a weed control management system, significantly reducing the weeds present.
- 60 farmers implemented electronic record keeping in their operation.
- 425 agricultural producers improved their record-keeping skills, resulting in an average **savings of \$125** in tax preparation.
- 44 farmer's markets generated \$2.1 million in sales.
- 2 West Virginia dairy's are working together to expand their markets by bottling and making cheese from their raw milk.
- A group of market gardeners are expanding their markets by selling directly to West Virginia restaurants. In 4 months, the group grossed more than \$20,000
- Farm families reduced their tax liability by an average of \$2,050.
- 68 farm families developed an estate plan.

- By incorporating agricultural business training into their operations, operators saved \$9,200 per farm.

State’s assessment of accomplishments: WVU Extension Service is proud of its ongoing efforts to assist the agricultural community to optimize income while continuing to be good stewards of resources. We continue to develop and deliver programs to demonstrate improved production techniques that allow agricultural producers to be more competitive.

Total expenditures by source of funding and FTE for goal

Federal Smith-Lever	\$850,000	FTE 14.00.
State matching	\$850,000	FTE 14.00
County matching	\$150,000	FTE 4.00

Key Theme 1—Agricultural Profitability

Brief Description: Profitability programs are the cornerstone of Extension agricultural programs. Extension specialists and county agents developed and delivered agricultural profitability programs throughout the state. These programs covered beef and feeder calf production and marketing, sheep production and marketing, home and commercial horticulture, grassland management, forestry production and management, farm and risk management, and value-added marketing. Regional and local meetings featured significant face-to-face contact to share and demonstrate methods and processes designed to make the farmer more competitive and to increase revenue while being a good steward of the environment.

The *beef quality assurance, process verification, and feeder calf sales* program demonstrated that cattlemen can produce good products and be good stewards of land resources. This program included both classroom and hands-on learning activities. The goal was to help farmers develop a product with quality and value while increasing their income and enhancing product reputation. In addition to providing education, Extension assisted with sales by helping develop new marketing pools. Collaborators included the W.Va. Department of Agriculture, W.Va. Beef Industry Council, W.Va. Cattlemen’s Association, Penn State Extension, Southern States Cooperative, livestock markets, pharmaceutical companies, and many local agricultural groups.

Grassland is the basis for agriculture in West Virginia. The primary agriculture industries—ruminant livestock—require grassland for their sustainability. Extension educates producers to provide least-cost, high-quality forage conditions. Areas of focus include rotational grazing, reduction of nitrogen fertilizer, increased calf weaning on high-quality pastures, and optimized winter feeding. Educational meetings featuring noted speakers were conducted across the state during the winter. Other programmatic activities included extended grazing season demonstrations; reduced fertilizer demonstrations and research; poultry litter application projects; and many field demonstrations, workshops, and programs.

Homeowner and commercial horticulture programs offered training to commercial groups and individuals on sustainable production and marketing of crops. In addition, programs to beautify lawns and landscapes were offered to homeowners and others. Additional support and consultations were provided on pest control recommendations and soil samples. Collaborators included the W.Va. Department of Tourism, direct marketing associations, W.Va. Farm Bureau, W.Va. Department of Agriculture, and related organizations and groups.

The *forestry and wood products* program developed and delivered educational programs throughout the state to train woodlot owners, loggers, and the public. Information was also

distributed to interested parties through newsletters, fact sheets, and brochures. Collaborators included the WVU Appalachian Hardwood Center, West Virginia Forestry Association, USDA Forest Service, and various other state and local organizations.

The *shepherd educational programs* focused on developing innovative ways to sustain the viable industry within the state. Workshops and demonstrations were held on predation control. In addition, marketing pools allowed producers to work cooperatively to improve marketability of their products. Other agencies collaborating in this area were USDA-APHIS wildlife services, W.Va. Farm Bureau, WVU Davis College of Agriculture, Forestry, and Consumer Sciences, W.Va. Purebred Sheep Association, W.Va. Department of Agriculture, and various other state and local organizations.

Farm and risk management efforts included workshops, meetings, and seminars to identify risk within agricultural enterprises. Part of the management involves the evaluating operations and adjusting risk management opportunities outside the operations. Traditional record keeping, income tax management, diversification, and estate planning were areas of focus during the past year. Other collaborating agencies were the W.Va. Department of Agriculture, WVU Davis College of Agriculture, Forestry, and Consumer Sciences, and related organizations and groups.

Impacts and Accomplishments:

- More than 900 producers are certified in Beef Quality Assurance.
- Three statewide quality assurance sales were conducted for 14 cattle pools.
- 215 producers marketed a total of 7,075 head through these sales.
- Increased return per farm over traditional marketing methods averaged \$4,014. This is more than a 100-percent increase over 2006.
- 934 producers reduced their hay production costs by adopting at least one best management practice.
- 88 producers adopted a sustainable management plan.
- 521 producers improved calf gain and health through pasture weaning.
- The use of precision agriculture to apply nutrients to fields resulted in an increase in net return of \$87 per acre.
- Producers used performance-tested sires for the BQA program.
- Increases of 76 pounds per head in steers and 61 pounds per head in heifers over traditional marketing methods resulted in more than \$89 in additional revenue per steer and just over \$70 per heifer. In total, the added value of these increased weights is an estimated \$579,768.84.
- 781 shepherds participating in wool marketing netted an extra 22 cents for their wool. Overall, producers netted more than \$40,000 for wool or \$1.45 per ewe.
- 235 producers implemented practices that will allow for process verification of animals sold on their farms.
- More than 8,000 animals were eligible for markets requiring USDA source and age verification.
- 55 shepherds adopted new management practices that resulted in an increase in net profits of more than \$850 per flock.
- 160 shepherds implemented predation control methods that resulted in a savings totaling more than \$6,000 (or \$40 per shepherd).
- Internal parasite control in small ruminants led to an average of \$408 saved per producer.
- Utilizing risk management techniques, producers reduced tax liability by more than an average of \$2,050 per producer.
- 70 fruit and vegetable growers adopted the use of drip irrigation.

- 157 woodlot owners adopted new forest practice methods.
- Master Gardener volunteers devoted 26,182 hours of service to the University and to their communities. In monetary terms, their work is valued at \$472,323.
- 14 commercial fruit producers used IPM monitoring.
- The use of biological controls resulted in yield increases of between 25 and 40 bushels per acre. This equates to between \$200 and \$320 per acre.
- Reduction in use of stink bug traps resulted in a 43-percent reduction in trap cost, which resulted in increased revenue per acre.

Source of Funds: Smith-Lever, state and county matching, grants

Scope of Impact: Multistate Extension Effort for Beef Quality Assurance program and State-specific for remainder of programs; Integrated Research and Extension – with the Davis College of Agriculture, Forestry, and Consumer Sciences

Key Theme 2—Aquaculture

Brief Description: Aquaculture production is a relatively new concept to most residents of West Virginia, but it is considered a desirable and promising activity and it is slowly growing. The industry is emerging as a sustainable and potentially profitable way to produce animals commonly considered wildlife. Two areas of focus have been developed at WVU: (1) use of groundwater from coal mines for production of salmonids for food, and (2) use of farm-raised fish for recreation. Aquaculture Extension is closely integrated with a multidisciplinary research project (the Aquaculture Food and Market Development Project) and focuses on the same two areas of economic development.

Each January, a statewide Aquaculture Forum is held in collaboration with the West Virginia Department of Agriculture and the West Virginia Aquaculture Association. The Aquaculture Extension Web site features events, general information, and recent research results. Workshops, demonstrations, and a newsletter are also used. County agents most commonly refer aquaculture inquiries to the aquaculture specialist.

Impacts and Accomplishments:

- Extension agents and specialists responded to 974 requests for aquaculture information and other aquaculture-related topics. Approximately 391 site visits were conducted during 2006.
- 1,467 interested individuals participated in 37 educational programs.
- 24 ponds improved fishing potential.
- 101 pond owners reported improved weed control.
- 58 pond owners reported improved water quality as a result of management recommendations provided by WVU Extension faculty.
- More than 5,500 grass carp were permitted for West Virginia in 2006. This is nearly a 100-percent increase from 2004 and will assist in aquatic vegetation control, fish management, and water quality.
- An aquaculture course was developed and offered through WVU Davis College of Agriculture, Forestry, and Consumer Sciences' Division of Resource Management. The initial success of the class was measured by the 23 graduate and undergraduate students enrolled.
- The initiative to promote the use of privately grown fish to stock state waters has continued since 2005. This initiative was developed by WVU Extension faculty working with state legislators and several other state agencies.

- Raceway design and simulation software (RDSS) was developed to model fish growth and water quality in serial-use raceways. This tool will assist producers and resource economists to make good decisions about management of flowing water systems.
- The Extension aquaculture specialist has demonstrated spawning techniques to numerous audiences. In 2006, he traveled to Hungary to demonstrate paddlefish spawning techniques to farmers, students, and faculty. This was a collaborative effort with Pannon University in Hungary and the first time paddlefish have been spawned in that country.
- Participation increased nearly 100 percent in the second fishing competition held in Franklin. This successful event has set the foundation for similar competitions. Faculty and staff are working with two additional fairs and festivals to include this type of competition in their schedule of events. Such events promote the use of farm-raised trout to encourage tourism.
- Healthful trout products were developed for the Fish Wagon and served at 5 events. Customers liked the product and consumed more than 400 pounds of fillets, 70 pounds of fish cakes, and 50 pounds of smoked fish.

Source of Funds: Smith-Lever, state and county matching, grants

Scope of Impact: Statewide, Northeast Region, and International. The multidisciplinary project draws from faculty in Food Science, Resource Economics, Animal Science, Civil and Environmental Engineering, Recreation and Parks, Horticulture, and Marketing. Aligning Extension's efforts with research efforts and economic development strategies is building a solid program for the budding aquaculture industry.

Key Theme 3—Managing Change in Agriculture

Brief Description: Agricultural lands in West Virginia continue to decline. Tremendous growth is taking place in urban areas surrounding cities, especially those in the state's Eastern Panhandle. Much of this urban sprawl has reduced the amount of farmland. Community and land use decisions are being made without adequate knowledge of the importance of agriculture in everyone's life. With technological advances and the increased urban, nonfarm populations, individuals are now several generations removed from actual working knowledge of agricultural production. Because of this, WVU-ES continues to deliver educational programs on the importance and relevance of agriculture in our world and community. These educational programs take place in varied settings that include in-school offerings, workshops, fairs and exhibits, and youth camps. The goal of this program is to enhance the agricultural knowledge of West Virginia's youths and adults and provide them with the knowledge and ability to make better-informed land use decisions related to agricultural needs, which maintain a high-quality environment. Collaborators included the West Virginia Department of Agriculture, West Virginia Farm Bureau, State Fair of West Virginia, county boards of education, and various other local boards and associations that support youth and agriculture endeavors.

Impacts and Accomplishments:

- More than 26,466 youths and 11,799 adults attended Extension's agricultural education programs in 2006.
- 3,671 market projects generated more than \$2,563,390 in 4-H and FFA livestock sale proceeds.
- An additional \$148,519 was returned to community groups and organizations from youth project livestock sales in 2006.
- Data indicate that 637,506 total pounds of meat products entered the food chain from youths' market animal projects.

- A study was conducted to determine the life skills gained by 4-H members participating in 4-H livestock projects. Two hundred seven (207) parents and/or guardians in nine (9) counties responded. Those surveyed ranked the following five (5) as the most highly influential: accepting responsibility, building positive self-esteem, self-motivation, setting goals, and developing and maintaining records.
- The Lamb Tail Docking Policy implemented during the 2004-05 year continued to be emphasized. Data were again collected to assess the policy's implementation. A total of 1,144 market lambs were exhibited statewide, with 9(.8 percent) being rejected. Of the 236 breeding sheep exhibited statewide, none (0.0 percent) were rejected.

Source of Funds: Smith-Lever, state and county matching, private gifts, fees

Scope of Impact: State-specific

Goal 2: To Provide a Safe and Secure Food and Fiber System

Executive Summary

Program Overview:

Across West Virginia, many organizations and groups provide meals, food items and education for the hungry. The Mountaineer Food Bank's (MFB) mission is to help alleviate hunger in West Virginia. It has developed an effective network for food acquisition and use throughout the state. It distributed more than 5.9 million pounds of food to hungry families in 48 of the state's 55 counties, reaching 428 feeding programs that served more than 250,000 people each month. The member agencies are food pantries, shelters, child development centers, senior citizens, and soup kitchens. Training for these partners through the *Germ City—Clean Hands, Healthy People Interactive Handwashing* project ensures the best food quality and safe handling. Washing hands is a key, but often overlooked, behavior that is important for food safety, disease prevention, and personal health.

Plan of Work Performance Goal

Reduce the overall incidence of foodborne illnesses in West Virginia.

Multistate/Integrated Activities:

WVU-ES served as co-principal investigator for the *Germ City—Clean Hands, Healthy People Interactive Handwashing Education* project implemented in five states, including West Virginia.

Outputs:

- Multiple educational programs and food handler trainings were delivered throughout the state on various topics of food safety and refrigerator and freezer safety.
- A 2.5-hour new member orientation was offered to member agencies of Mountaineer Food Bank six times during the year.
- A follow-up questionnaire about family and consumer science responsibilities at the county level was administered. The results were disseminated at state and national meetings.
- Multiple in-service training sessions on food safety issues educated faculty and volunteers.
- Germ City Web site (www.germcity.wsu.edu) development and management continued during 2006 as a collaborative effort among five state Extension specialists.
- Fact sheets, newsletters, and demonstrations were used to deliver the Germ City program.

- Teachers completed a questionnaire about benefits of the Germ City Program.
- 18 West Virginia counties participated in Germ City in 2006.
- Germ City was presented 214 times by 18 faculty, with 6,553 children and 1,597 adults participating.
- The program was supported by 92 volunteers.
- “If You Pet It, Don’t Forget It” signage about handwashing was produced and distributed to West Virginia counties for public posting at fairs and livestock events.

Outcomes:

- Children who participated in Germ City regularly reported that they washed their hands before eating dinner the night before and after they last used the bathroom.
- Extension agents reported high confidence in their ability to provide adequate information for various preservation questions as they come up in their counties.
- “If You Pet It, Don’t Forget It: Wash Your Hands, You Won’t Regret It” signage at fairs and festivals in the state was found to be effective, based on response from fair board members and Extension faculty.

Impacts:

- The Germ City program has been disseminated nationally. New programs have been initiated by Extension in Tennessee, Vermont, Arizona, and California, as well as by individual universities (Western Illinois University and West Virginia State University) and the Lane County (Ore.) Fair.
- Research showed that Germ City has significant impact on children’s handwashing skills and that washing hands regularly has a positive impact on children’s health.

Total expenditure by source of funding and FTE for goal

Federal Smith-Lever	\$ 50,000	FTE 1.00
State matching	\$ 60,000	FTE 1.00
County matching	\$20,000	FTE 0.50

Key Theme—Food Handling

Brief Description: Extension county faculty and specialists teamed to form partnerships with local organizations and volunteers to deliver a wide range of educational programs on food handling and food safety. Specific target audiences were food service managers, workers, and volunteers.

Food Safety Education for New Member Agencies of Mountaineer Food Bank targeted food pantries, shelters, child development centers, senior centers, and soup kitchens. The objectives of this initiative were to give volunteers an opportunity to improve their basic food safety knowledge; to increase volunteers’ knowledge of ways to safely receive, handle, and store food; and to provide food safety education to an underserved audience, primarily those who volunteer at food pantries, shelters, and soup kitchens. The 2.5-hour member orientation was offered six times during the year in conjunction with regular board meetings.

Germ City is an interactive handwashing demonstration, exhibit, and education program supported with grant funds from USDA-CSREES. It is a multistate initiative (Alabama, Hawaii, Idaho, Washington, and West Virginia) and multiyear program (began in 2003 with programming in West Virginia counties). The program uses science-based education to help

people become more aware of the importance of handwashing. Specific goals include: modifying attitudes, enhancing personal motivation, and facilitating positive behavioral change associated with handwashing. In 2006, the Germ City programming was a continuation of previous years'. Germ City was presented 155 times, including a national presentation, seven statewide presentations, and 147 county-based programs. In 2006, this educational endeavor for youth and adults reached 6,533 youths and 1,597 adults. This program continues to be an avenue for education through schools, fairs, and festivals.

Food Preservation/Food Safety education program targets families who preserve homegrown food in an effort to meet the nutritional needs of families. Extension faculty provides research-based food preservation information. County and state faculty delivered educational information and resources to citizens through phone calls, face-to-face consultations, news releases, radio and TV spots, and public programs.

If You Pet It, Don't Forget It; Wash Your Hands, You Won't Regret It is a project designed to increase people's awareness of the importance of handwashing, especially after touching animals.

A research project was continued in 2006 to:

1. determine if handwashing signs impact handwashing behavior of county and state fair attendees.
2. determine if the use of handwashing signs affects the attitude and behavior of members of county and state fair boards.

Impacts and Accomplishments:

- *Food Preservation/Food Safety* program participants increased their knowledge base, and their newly acquired skills benefited the participants personally and when providing feeding programs.
- Food Safety education and resources were delivered to 1,209 adults directly and to 91,107 adults indirectly through media. 901 youths were reached by direct contact.
- 12 Serv-Safe courses were conducted with 517 participants.
- 221 people had the accuracy of their pressure canner gauges tested.
- 59 new partnerships were created through Germ City.
- *The Animals and Handwashing* project was effective, based on the pre- and post-surveys from 18 counties, the observation of increased use of soap and towels at fairs, and positive comments to fair board members and Extension faculty. A display board was used and signage distributed to each county Extension office across West Virginia for use at local fairs and animal events.

State's Assessment of Accomplishments

Germ City is a project that is successful, based on documented outcomes and impacts. Volunteers have been quite important for the program delivery and evaluation. Parents, teachers, students, school nurses, infections control specialists, and public health educators have been involved in marketing the program. To maintain sustainability, it will continue to be a collaborative program

Source of Funds: Smith-Lever, state and county matching, grants

Scope of Impact: State and multistate (Germ City)

Goal 3: To encourage a healthy, well-nourished population

Executive Summary

Program Overview

Cancer, diabetes, and heart disease are major health issues in West Virginia. These chronic diseases have enormous negative economic impacts. The causes of these diseases are linked to social styles, culture, and sedentary lifestyles of both youths and adults. Extension continues a comprehensive health and nutrition strategy that includes educational programs to educate people about the value of eating healthy diets and the importance of modifying their dietary habits and physical activity. The programs use experiential instruction, demonstrations, diagnostic assessments, and physical activity. Research has shown that for every dollar spent on nutrition, a savings in health care costs of between \$3.65 and \$10.64 results over the long run.

Plan of Work Performance Goals:

To address the current health issues of West Virginia, WVU Extension Service will promote the physical health and well-being of limited-resource families and individuals through education to impact changes in behaviors. The focus of these behaviors is quality of diet, food safety, food consumption, and food security.

Multistate/Integrated Activities: State-specific

The priority health and nutrition programs are *A New You: Health for Every Body, Active for Life, Diabetes Education (including Dining with Diabetes and Bridging the Gap: Diabetes Symposium), Family Nutrition Program, Health Challenge Series—Health Planner, and Women and Heart Health.*

Outputs

- The 28 nutrition outreach instructors (NOI) made 43,584 direct contacts. Incomes of 89 percent of those FNP families were below 185 percent of Federal poverty levels.
- In 2006, 44 NOIs, 41 Extension faculty, and 1,260 volunteers collaborated.
- 1,763 adults (families) and 7,349 youths completed a series of nutrition education lessons.
- 42 adults were trained as Active for Life (AFL) leader volunteers, and 33 community volunteers taught classes in 9 counties.
- 217 adults participated in AFL programs in 2006.
- “Heart Truth for Women” was published in 2006 and used in family educational programs statewide.
- The American Heart Association grant of \$36,639 funded heart health programming across the state.
- A total of 42 Dining with Diabetes programs in counties across West Virginia were conducted.
- 433 volunteers contributed 5,245 hours to health and nutrition programs.
- 656.25 nutrition education hours were delivered.
- \$24,298 was spent on nutrition programs at summer camps.
- 122 camping partnerships were formed.
- 3,658 youths were reached through 71 summer camps.
- 475 CEOS members participated in Breast and Cervical Awareness programs and in Dining with Diabetes Cooking Schools.
- Almost 100 (98) individuals participated in A New You this year in eight counties:

- Greenbrier
- Jefferson
- Kanawha
- Monongalia
- Putnam
- Raleigh
- Tyler
- Wirt
- *Heart Truth for Women* publications were disseminated to CEOS in 28 counties for educational sessions in 2006, reaching approximately 2,849 CEOS members.
- Pre- and post-surveys from *Love Your Heart Talks* suggest that the informal, woman-to-woman approach may lead to knowledge gain, particularly among older women.
- The CEOS Family Committee Reports cited 27 counties doing heart health awareness activities.
- 1,025 CEOS 2006 Area Meeting participants received women's health brochures and heart pins in celebration of national Women's Health Month (sponsored by the WVU National Center of Excellence in Women's Health.)
- *West Virginia Women Go Red for Heart Health* project focus group feedback and specific recommendations for AHA messages and community education helped tailor the *Love Your Heart Talks* strategies and materials so they are culturally relevant to West Virginia and Wood County women.
- Nine heart attack survivors told their inspiring personal stories on *The Heart of the Mountains* videos, which now are available for educational activities.
- Local sponsors donated \$1,250 to cover the cost of a *Heart Health Is Fashionable* event in Parkersburg.
- At a Parkersburg *Heart Health Is Fashionable* event, 12 heart survivors from the community modeled fashions on loan from three clothing retailers.
- WVU-Parkersburg donated the facility and staff; they served a heart-healthy luncheon for 200 women.
- Because of the successful *Heart Health Is Fashionable* event in Parkersburg, Morgantown women replicated the event. Donor support totaled \$4,000, and 201 women participated. The event consisted of a fashion show, local sponsor presentations, *The Heart of the Mountains* video, and free health screenings.
- A *Love Your Heart Talk* kit was developed with new and existing materials in an easy-to-do format. Materials include invitations, planning guide, *Love Your Heart Talk* outline, American Heart Association handouts, refreshment ideas, and pre- and post-surveys.
- Eight CEOS members from six counties who participated in a WVCEOS Conference workshop were trained to deliver *Love Your Heart Talks*.

Outcomes

- Graduates of the Family Nutrition Program (Adults) Outcomes
 - 95.1 percent made a positive change in diet behaviors
 - Increased daily dietary fiber intake by 3.8 grams
 - Increased fruit and vegetable servings by 1.7 daily
 - Increased calcium intake by 232 milligrams daily
 - Saved an average of \$6.50 per month on food
 - 92 percent improved nutrition behaviors
 - 63 percent increased food safety practices
 - 84 managed food resources better
- Youth Nutrition Programs

- 66 percent of participants improved ability to select healthy foods
- 82 percent of participants increased knowledge of human nutrition
- 78 percent of participants improved food safety practices
- Participants in the Dining with Diabetes programs increased their overall knowledge of clinical and behavioral aspects of the disease.
- A New You participants showed significant changes from the pre-test to the post-test on four of the physical behaviors. Those were getting as much physical activity as one needed, not watching television while eating, not getting a “super-sized” portion when there was opportunity to do so, and not being on a diet since the class began meeting.
- A New You participants were more likely to say that they would not be more successful or happier if their body size and shape were closer to perfect, that many different shapes and sizes of human bodies can be attractive, that they were comfortable with how they look even if their body was not perfect, and that they have abilities and skills that are more important than their body and size.
- A New You participants significantly increased their body image in 10 areas: brooding about body shape; worrying about the size of thighs, hips, or bottom; worrying about having firm flesh; crying about body shape; feeling self-conscious around thin people; worrying about thighs spreading when sitting; feeling fat when eating sweets; feeling ashamed of one’s body; dieting because of worry over one’s shape; and exercising because of worry over one’s shape.
- A New You: Health for Every Body program does help participants to feel better about their own size and shape and to take certain positive measures to maintain their health.
- Women learned about heart health from local sponsors and a segment of the *Heart of the Mountains* video. A brief 5-question pre- and post-survey completed by 82 Parkersburg *Heart Health Is Fashionable* event participants (41% of total) revealed significant ($p < .001$) gains in knowledge of signs of heart disease in women, personal behaviors affecting heart disease risk, ways to reduce risks, questions to ask a doctor, and community resources.
- A brief 5-question pre- and post-survey completed by the Morgantown *Heart Health Is Fashionable* event participants revealed significant ($p = .001$ to $.004$) gains in knowledge of signs of heart disease in women, personal behaviors affecting heart disease risk, ways to reduce risks, questions to ask a doctor, and community resources.
- Pre- and post-surveys from *Love Your Heart Talks* suggest that the informal, woman-to-woman approach may lead to knowledge gain, particularly among older women.

Impacts

- FNP participants reported healthy eating and active lifestyle changes as noted in the following:
 - increase in daily intake of fruits and vegetables (from 2.6 to 4.1 servings);
 - increase in daily intake of (dairy) calcium (0.9 to 1.4 servings);
 - decrease in daily intake of (fat) calories (from 3.4 to 2.8);
 - 43 percent reported a decrease in sodium.
 - 173 families enrolled in one or more assistance programs as a result of FNP
- As a result of attending an FNP session, participants were able to demonstrate the following safe food-handling techniques:
 - 57 percent of participants improved in following safe thawing procedures;
 - 27 percent of participants improved techniques for safely storing foods.
- Twelve Wood County women trained to conduct *Love Your Heart Talks* in informal settings have begun to give talks; they have reached 58 women.

State's Assessment of Accomplishments

Health and Nutrition program are relevant throughout the state. They effectively educate our citizens in the importance of eating healthy diets and codifying behaviors in ways that lead to healthy lifestyles. Programming promoting physical activity for adults and youths has been effective. There is need for continuous health and nutrition programming across West Virginia. Requesting education and resources by citizens is ongoing.

Total expenditures by source of funding and FTE for goal

Federal Smith-Lever	\$ 200,000	FTE 3.00
State matching	\$225,000	FTE 4.00
County matching	\$ 40,000	FTE 1.00

Key Theme 1—Human Nutrition and Health

Brief Description: Extension delivered human nutrition and health education in five major programs during 2006: *A New You: Health for Every Body*, *Active for Life*, *Dining with Diabetes*, *Bridging the Gap: Diabetes Symposium*, and *Women's Heart Health*.

A New You: Health for Every Body: A curriculum for adults who struggle with weight and food. The multimethod, experiential learning program offers insights and tools for setting and achieving goals for health behavior changes in the areas of food, physical activity, and body image.

Active for Life was originally developed as a WVU Extension Service Preventicare National Demonstration project. It is a community-based program featuring low-intensity exercise activities for older adults. Participants are encouraged to attend 35-minute class sessions one to three times each week. Community leaders are trained to lead the groups and provide local leadership for community sites. The program goals are to improve the health and well-being of older adults. Specific objectives for the participants are to continue using muscles and joints to prevent loss of strength and flexibility, to have social contact with peers, to have an opportunity to keep up-to-date on health issues, and to gain status and recognition from family and peers.

Dining with Diabetes focuses on increasing the healthy food choices by people with diabetes. A series of six Diabetes Cooking Schools (two-hour sessions) are conducted weekly for diabetics, their family members, and caregivers. The sessions include cooking demonstrations, food tasting, discussions of diabetes-related topics, and a brief exercise session. The program has a six-month follow-up "reunion" when participants share feedback and receive additional encouragement and support. Multiple partners and volunteers assist with this initiative. The specific goals are to increase knowledge of healthy food choices; present healthy versions of familiar foods; demonstrate cooking techniques using healthy ingredients; promote behavior changes with demonstrations and taste tests; promote physical activity; encourage self-management and self-efficacy skills; provide opportunities for participants to share and learn from one other; and provide diabetes education. In 2006, 42 Dining with Diabetes Schools were held in West Virginia.

Bridging the Gap: Diabetes Symposium: An annual conference brings nationally recognized diabetes educators and researchers to West Virginia to present the most current information on diabetes prevention, care, and self-management.

Women and Heart Health: This program strives to improve the status of women's health in West Virginia by improving people's knowledge about heart disease, ability to understand personal risk factors and talk to health care providers about risk factors, ability to recognize symptoms of heart attack and stroke and respond to them appropriately, and ability to modify daily health habits to reduce risks of heart disease.

Impacts and Accomplishments:

- Active for Life (AFL) participants reported increased knowledge and physical activity.
- 90 counties reported development or continuation of AFL programs in 2005.
- After being trained, 26 AFL leaders led 217 participants in classes.
- CEOS members participated in Breast and Cervical Awareness programs, which involved adult volunteers. CEOS members volunteered in Dining with Diabetes Cooking Schools and Heart Health Programs as partners in delivering these educational programs.
- *The Dining with Diabetes Program* data indicate that participants in the 42 programs achieved significant improvements in the areas of knowledge, behavioral change, and clinical results.
- Individuals and groups in counties where the *Dining with Diabetes* program has a long history are requesting continued programs.
- Eighty-seven percent to 90 percent of Bridging the Gap: Diabetes Symposium's 300 participants from 17 states said they gained answers to their questions, received resource materials they could use, and got ideas could try. From more than 100 responses, "quality of speakers" and "organization of the conference" were by far the most frequent comments.
- Funding for the diabetes conference comes from three sources: registration fees from the approximately 250 paying participants, educational grants, and exhibitor fees. Three title sponsors contributed \$15,000 each, seven major sponsors contributed between \$1,000 and \$10,000, and 25 additional exhibitors contributed approximately \$400 each.
- Almost 100 (98) individuals participated in the A New Program this year in eight counties:
 - Greenbrier
 - Jefferson
 - Kanawha
 - Monongalia
 - Putnam
 - Raleigh
 - Tyler
 - Wirt
- A New You participants showed significant changes from the pre-test to the post-test on four of the physical behaviors. Those included getting as much physical activity as one needed, not watching television while eating, not getting a "super-sized" portion when there was opportunity to do so, and not being on a diet since the class began meeting.
- A New You participants were more likely to say that they would not be more successful or happier if their body size and shape were closer to perfect, that many different shapes and sizes of human bodies can be attractive, that they were comfortable with how they look even if their body was not perfect, and that they have abilities and skills that are more important than their body and size.
- A New You participants significantly increased their body image in 10 areas: brooding about body shape; worrying about the size of thighs, hips, or bottom; worrying about having firm flesh; crying about body shape; feeling self-conscious around thin people; worrying about thighs spreading when sitting; feeling fat when eating sweets; feeling

ashamed of one's body; dieting because of worry over one's shape; and exercising because of worry over one's shape.

- A New You: Health for Every Body program does help participants feel better about their own size and shape and take certain positive measures to maintain their health.
- *Heart Truth for Women* publications were disseminated to CEOS in 28 counties for educational sessions in 2006, reaching approximately 2,849 CEOS members.
- The CEOS Family Committee Reports cited 27 counties doing heart health awareness activities.
- 1,025 CEOS 2006 Area Meeting participants received women's health brochures and heart pins in celebration of national Women's Health Month (sponsored by the WVU National Center of Excellence in Women's Health.)
- *West Virginia Women Go Red for Heart Health* project focus group feedback and specific recommendations for AHA messages and community education helped tailor the *Love Your Heart Talks* strategies and materials so they are culturally relevant to West Virginia and Wood County women.
- Nine heart attack survivors told their inspiring personal stories on *The Heart of the Mountains* videos, which are now available for educational activities.
- Local sponsors donated \$1,250 to cover the cost of a *Heart Health Is Fashionable* event in Parkersburg.
- At a Parkersburg *Heart Health Is Fashionable* event, twelve heart survivors from the community modeled fashions on loan from three clothing retailers.
- WVU-Parkersburg donated the facility and staff; they served a heart-healthy luncheon for 200 women. Women learned about heart health from local sponsors and a segment of the *Heart of the Mountains* video. A brief 5-question pre/post survey completed by 82 *Heart Health Is Fashionable* event participants (41% of total) revealed significant ($p < .001$) gains in knowledge of signs of heart disease in women, personal behaviors affecting heart disease risk, ways to reduce risks, questions to ask a doctor, and community resources.
- Because of the successful Parkersburg *Heart Health Is Fashionable* event, Morgantown women replicated the event. Donor support totaled \$4,000, and 201 women participated. The event consisted of a fashion show, local sponsor presentations, *The Heart of the Mountains* video, and free health screenings. A brief 5-question pre/post survey completed by *Heart Health is Fashionable* event participants revealed significant ($p = .001$ to $.004$) gains in knowledge of signs of heart disease in women, personal behaviors affecting heart disease risk, ways to reduce risks, questions to ask a doctor, and community resources
- A *Love Your Heart Talk* kit was developed with new and existing materials in an easy-to-do format. Materials include invitations, planning guide, *Love Your Heart Talk* outline, American Heart Association handouts, refreshment ideas, and pre- and post-surveys.
- Twelve Wood County women trained to conduct *Love Your Heart Talks* in informal settings have begun to give talks; they have reached 58 women. Pre- and post-surveys from *Love Your Heart Talks* suggest that the informal, woman-to-woman approach may lead to knowledge gain, particularly among older women.
- Eight CEOS members from six counties who participated in a WVCEOS Conference workshop were trained to deliver *Love Your Heart Talks*.

Source of Funds: Smith-Lever, state and county matching, and grants

Scope of Impact: State-specific and national

Key Theme 2—Family Nutrition

- **Brief Description:** The *Family Nutrition Program* uses paraprofessionals—nutrition outreach instructors (NOIs)—to deliver nutrition education lessons to limited-resource families and youths. It targets limited-resource families with incomes at or below 185 percent of the federal poverty level and schools, groups, or summer camps where more than 50 percent of participants are eligible for the free and reduced-price lunch program. This audience is often referred to as the “working poor.” Programs are conducted at times and locations convenient to participants. The NOIs recruit program participants from lists provided by county Department of Health and Human Resources offices. In addition, public schools may refer parents who participate in Head Start programs or free and reduced-price lunch programs. To increase levels of trust, the NOIs make personal contacts with participants in mostly rural areas. The program also emphasizes experiential learning, with food demonstrations conducted in each class. In addition, the demonstrations provide opportunities for instructor-participant interaction. Participants learn the importance of healthy eating and active lifestyle behaviors, including increased daily intake of fruits, vegetables, and calcium-rich foods and decreased daily intake of high-fat foods and sodium. In addition, participants become more knowledgeable about the benefits of Food Stamps, WIC, food pantries, and school lunch and breakfast programs. Moreover, participants learn safe food handling techniques and food resource management skills.

Impacts and Accomplishments:

- As a result of attending an FNP session, participants demonstrated the following food resource management skills:
 - 52 percent showed improvement when planning meals in advance
 - 42 percent improved ability to compare prices when buying food
 - 44 percent improved ability to make food last throughout the month
 - 48 percent improved by using a grocery list when shopping for food
 - Money spent on food per month was reduced from \$116.4 to \$109.9
- As a result of youth attending FNP sessions, participants increased their knowledge of nutrition and healthy eating behaviors:
 - 34 percent now eat a variety of foods
 - 18 percent increased knowledge of nutrition
 - 10 percent increased their ability to select low cost, nutritious foods
 - 23 percent improved their food preparation and safety practices
- Outcomes of adult graduates of the Family Nutrition Program:
 - 95.1 percent made a positive change in diet behaviors
 - Increased daily dietary fiber intake by 3.8 grams
 - Increased fruit and vegetable servings by 1.7 daily
 - Increased calcium intake by 232 milligrams daily
 - Saved an average of \$6.50 per month on food
 - 92 percent improved nutrition behaviors
 - 63 percent increased food safety practices
 - 84 percent managed food resources better
- Youth Nutrition Program outcomes:
 - 66 percent of participants improved ability to select healthy foods
 - 82 percent of participants increased knowledge of human nutrition

- 78 percent of participants improved food safety practices
- FNP participants reported the following healthy eating and active lifestyle changes:
 - increase in daily intake of fruits and vegetables (from 2.6 to 4.1 servings);
 - increase in daily intake of (dairy) calcium (0.9 to 1.4 servings);
 - decrease in daily intake of (fat) calories (from 3.4 to 2.8);
 - 43 percent reported a decrease in sodium.
 - 173 families enrolled in one or more assistance programs as a result of FNP
- As a result of attending an FNP session, participants were able to demonstrate the following safe food handling techniques:
 - 57 percent of participants improved in following safe thawing procedures;
 - 27 percent of participants improved techniques for safely storing foods.
- In 2006, the Family Nutrition Program made 102,326 direct contacts and delivered 4,026 nutrition education programs in the form of lessons.
- In 2006, 44 Nutrition Outreach Instructors, 41 Extension agents, and 1,260 volunteers contributed their time and expertise to carry out the program in 40 counties.
- The 28 Nutritional Outreach Instructors (NOI) made 43,594 direct contacts. 89 percent of those FNP families had incomes below 185 percent of Federal poverty levels.
- Eight instructors made 43,584 direct contacts.
- In 2006, 44 NOIs, 41 Extension faculty, and 1,260 volunteers collaborated.
- 1,763 adults (families) and 7,349 youths completed a series of nutrition education lessons.
- \$24,298 was spent on nutrition programs at summer camps.

Source of Funds: Smith-Lever, state matching, and grants

Scope of Impact: State-specific

Goal 4: To achieve greater harmony between agriculture and the environment

Executive Summary

Program Overview

It is important for Extension to continue to maintain the quality of the environment to ensure our future. Pests can affect the quality of life. There is now a concern that disease pests from outside the United States may enter and pose a threat to agricultural production. To deal with this concern, a functional nationwide network of public agricultural institutions was formed to quickly detect deliberately introduced, high-consequence biological pests and pathogens in our agricultural and natural ecosystems by providing means for quick identifications and protocols for immediate reporting to appropriate responders and decision-makers. This networking of diagnostic experts will improve outreach programming in West Virginia, involving Extension personnel and agricultural producers. To manage these pests, agriculturalists use chemical pesticides that are under continual regulatory evaluation. Information is needed to promote informed regulatory decisions on registered pesticides used in Mid-Atlantic states and on alternative pesticide practices such as IPM. WVU Extension provides educational programs that meet the state certification requirement of informing and instructing private and commercial applicators of changes in regulation, application, and availability of chemical pesticides and the safe handling of these products. Extension also provides information on federal and state regulations and policies.

Agricultural producers were the original environmentalists. However, some methods and practices employed by producers were not considered sustainable. The development of best

management practices and implementation of nutrient management strategies on farming operations are paramount to the continuation of this rural lifestyle. Through collaboration with other state and national agencies, WVU Extension Service has planned and developed educational programming to address water quality, nutrient management, and sustainability. In addition, outreach programs and certification programs for nutrient management planners meet the state certification requirements.

Plan of Work Performance Goals

- Deliver fundamental nutrient management training and certification programming to producers and industry personnel within the state.
- Enhance landowners' knowledge and use of best management practices through nutrient management recommendations and educational meetings.
- Increase awareness of water-quality impacts to watersheds through educational programming and the development and support of local organizations and associations.
- Increase the adoption of a more sustainable approach to managing resources while maintaining profitability.
- Reduce the overall dependence on pesticides for managing pests in agricultural crop production.
- Promote the adoption of IPM practices (Prevention, Avoidance, Mitigation, Suppression [PAMS] strategy) in West Virginia crop production.
- Reduce crop production costs as a result of adopting IPM.
- Improve diagnostic capabilities to provide information in a timely manner to appropriate responders and decision-makers.
- Deliver pesticide regulatory information to Extension educators, growers, crop consultants, and pesticide users in the state.
- Reduce the misuse of pesticides by applicators through pesticide safety education.
- Improve the use of pesticides with current technology.
- Increase the selection of environmentally safe pesticides.
- Provide updated training to commercial and private pesticide applicators in the state.

Multistate/Integrated Activities – West Virginia is part of the Mid-Atlantic regional water quality project. This group is involved in the development and delivery of water quality workshops and programs that address regional concerns while using common resources. The Mid-Atlantic Information Network for Pesticides and Alternative Strategies, of which West Virginia is a part, has established an advisory committee to develop information to assist in pesticide decision-making.

Outputs:

- 350 landowners participated in workshops and field days focusing on nutrient management.
- Agents and specialists assisted 8 watershed groups on water quality issues.
- 17 field days and meetings devoted watershed and water quality attracted 310 participants.
- 8 pesticide safety educational training programs were delivered.
- 40 counties hosted private pesticide applicator trainings.
- Category manuals have been inventoried, maintained, and updated to meet requests for certification by both private and commercial applicators.
- 12 Master Gardener lectures on insect and disease identification and their management were presented.

- The pesticide safety and plant disease chapters of the W.Va. Master Gardener Manual were reviewed, updated, and published.
- Monthly newsletters on pesticide safety and IPM practices were developed and distributed.
- Monthly newsletters addressing pesticide use are distributed and posted on the WVU Pest Management Web site.
- Plant identification clinics conducted in several counties provided technical information.
- PowerPoint presentations and CDs were developed dealing with pest identification and management and distributed to WVUES county offices for use in trainings.
- Fact sheets, brochures, and posters on threatening diseases were distributed to WVU Extension faculty.
- 36 programs on IPM were delivered to 915 clients.
- Two tree fruit schools were held.
- Twilight meetings and field days were held during the summer to discuss challenges, opportunities, and problems in tree fruit production.
- A nutrient software package was developed and evaluated by 45 certified nutrient management planners.
- A regional nutrient budget for nitrogen is being developed.
- 120 future farmers statewide were trained in pest identification and management.
- 71 WVU students attended a session on pesticides and the environment.
- 234 Master Gardeners were trained to identify and manage insects and diseases.
- Diagnostic results were entered for documentation in a national database. 360 specimens were received, and 99 e-mails were answered.
- A 32-member advisory committee reviewed the pest management program and made comments and suggestions for improvement. Hands-on pesticide safety demonstrations were presented in 2 counties.
- The pest management website has been maintained to facilitate communication links with stakeholders.
- Developed chapter for Mid Atlantic Nutrient Management Handbook.
- More than 1,280 commercial and private pesticide applicators from around the state received updated training for recertification.
- Approximately 960 individuals received noncertification pesticide education.
- 89 certified nutrient management planners participated in continuing education classes.

Outcomes:

- 1,501 private applicators were certified.
- 521 private applicators were recertified.
- 115 fruit growers received recertification credit as private applicators.
- Of those recertified, 76 percent planned to make changes in pesticide use practices.
- Of those recertified, 41 percent will use better safety procedures resulting in a reduced risk of environmental contamination.
- 2,256 registered technicians were certified.
- 1,537 commercial applicators were certified.
- 703 commercial applicators were recertified.
- 909 clients followed IPM recommendations provided by Extension faculty.
- More than 100 West Virginia Nutrient Management Planners are now certified.
- 88 farmers implemented a sustainable management change to their operations.
- 125 farmers adopted an overall farm sustainable management plan.
- 87 farmers attempted a sustainable practice that they had not considered before.

- Plant problems are identified more quickly.
- 14 commercial fruit producers utilized IPM monitoring.
- 26 farmers attempted on-farm research.
- 99 farmers developed a program that allowed them to reduce their herbicide use. 30 of these producers utilized small ruminants in the management of woody weeds.
- 11 producers adopted extended grazing practices to increase the sustainability of their farming operation.
- 4 farmers applied for farmer-grower grants; 2 were funded.

Impacts:

- The use of biological controls resulted in a yield increase of 25 to 40 bushels per acre. This equates to \$200 to \$320 per acre.
- Net return of \$87 was realized by landowners who implemented precision agriculture practices.
- Reduction in stink bug traps meant in a 43-percent reduction in cost, which resulted in an increase in revenue generated per acre.
- More than 6,040 acres of agricultural lands are under improved management systems as a result of nutrient management plans.
- Producers are able to reduce their cost of production while protecting the environment as a result of developing nutrient management plans and implementing best management practices.
- Water quality in Lincoln County is being improved as a result of a watershed remediation plan using demonstration septic systems.
- Private pesticide applicators reduced the risk of pesticide contamination and lessened environmental contamination.
- An average reduction in pesticide use of 11 percent resulted from adoption of IPM practices.
- An increase of 16 percent in adoption of IPM practices.
- \$12,400 in savings was reported as a result of adoption of IPM practices.
- An average reduction of 26 percent in weed levels resulted from implemented IPM practices.
- No threatening disease was detected in West Virginia during 2006.
- 22 farmers adopted a more sustainable, reduced tillage approach to prepare fields.
- Problems were immediately reported to appropriate responders.

State’s Assessment of Accomplishments: These are significant issues that require continual monitoring and education to reduce risks and maintain the quality of the environment.

Total expenditures by source of funding and FTE for goal

Federal Smith-Lever	\$70,000	FTE 1.00
State matching	\$90,000	FTE 2.00
County matching	\$20,000	FTE .50

Source of Funds: Smith-Lever, state, matching county funds, grants

Scope of Impact: State-specific

Key Theme 1—Plant Diagnostics

Brief Description: The Extension specialist and support staff have used funding to gather information to improve diagnostic capabilities, providing information in a timely manner to the

appropriate responders and decision-makers. This has been accomplished by attending regional diagnostic networking meetings.

Impacts: West Virginia University is participating in a functional nationwide network with other public agricultural institutions to form a cohesive, distributed system to quickly detect deliberately introduced, high-consequence biological pests and pathogens into our agricultural and natural ecosystems. The network provides the means for quick identifications and protocols for immediate reporting to appropriate responders and decision-makers.

Source of Funds: Cornell University/Homeland Security Agency

Scope of Impact: State-specific, with regional and national linkage

Key Theme 2—Mid-Atlantic (West Virginia) Information Network for Pesticides and Alternative Strategies

Brief Description: The Extension specialist and support staff have developed information obtained from state and regional agricultural producers and Extension specialists to contribute to pesticide decision-making. This has been accomplished through the establishment of an advisory committee, development of information about pesticide usage on state crops, coordination and communication with allied programs within the state and the region, and maintenance of linkages with federal partners and state clientele.

Impacts: A monthly newsletter dealing with pesticide use and integrated pest management was developed and disseminated electronically; it was made available to stakeholders and Extension faculty. A 32-member advisory committee reviewed the pest management program and made comments and suggestions for improvement. Hands-on pesticide safety demonstrations were presented in two counties. The pest management Web site has been maintained to facilitate communication links with stakeholders.

Source of Funds: Northeast Pest Management Center; U.S. Department of Agriculture

Scope of Impact: State-specific, with regional and national linkage

Key Theme 3—Pesticide Safety Education Program

The Extension specialist and support staff have incorporated recent appropriate information into their training programs delivered throughout the state. These programs are targeted to the private and commercial pesticide applicators. These programs focus on the safe handling and proper use/application of chemical pesticides. They offer the opportunity for people to be licensed and certified to apply restricted-use pesticides as required by the W.Va. Department of Agriculture. Also carried out were noncertification education programs relating to identifying insects and diseases and managing them, both chemically and nonchemically.

Impacts: More than 1,224 commercial and private pesticide applicators from around the state received update recertification training. Of the recertified private applicators, 76 percent indicated that they were going to make changes in their pesticide use. In addition, 41 percent of the participants will use better safety procedures. This should result in a reduced risk of environmental contamination. Approximately 975 individuals received noncertification education.

Source of Funds: Smith-Lever, state matching, and grants

Scope of Impact: State-specific, with regional and national linkage

Key Theme 4—Nutrient Management

Brief Description: The WVU Extension Service develops and delivers educational training on nutrient management and the importance of nutrient management in protecting the environment. These programs target certified nutrient management planners. Update training is also required for those certified individuals. Because nutrient management criteria change frequently, the curricula used in this training are reviewed and updated often. In addition, nutrient management training for landowners is essential in improving and maintaining water quality standards.

Impacts: More than 100 nutrient management planners are now certified in West Virginia. Eighty-nine certified nutrient management planners participated in continuing education classes. More than 350 producers participated in nutrient management field days and meetings, which resulted in improved nutrient management strategies being implemented on 6,040 acres. As a result of implemented precision-agriculture practices, an increase of \$87 per acre was realized by 5 landowners. Nutrient management software was evaluated by 45 nutrient management planners to improve the information generated by the program.

Source of Funds: Smith-Lever, matching state, and grants

Scope of Impact: State-specific, with regional and national linkages

Key Theme 5—Water Quality

Brief Description: In collaboration with county agents, the Extension specialist is developing and implementing strategies to improve the state's water quality. Efforts are ongoing to develop and deliver educational programming to address phosphorus and nitrogen management, regional nutrient budgets, concentrated animal feeding operations regulations, and environmental policy as it affects nutrient management and water quality. To address these and other issues, Extension personnel work with watershed associations to increase awareness of water-quality issues on the local level.

Impacts: A regional nutrient budget for phosphorus was completed, and a regional nutrient budget for nitrogen is being developed. Seventeen field days were attended by 310 individuals.

Source of Funds: Smith-Lever, matching state, and grants

Scope of Impact: State and regional

Key Theme 6—Integrated Pest Management (IPM)

Brief Description: Combined losses caused by weeds and other pests may exceed 75 percent across all crops in West Virginia. Losses from weeds alone in field crops may exceed 75 percent if left uncontrolled. Conventionally, pesticides are used for managing these pests. Although pesticide use is inevitable, a combination of other strategies to encompass an integrated approach to control pests (IPM) (including using GMOs, disease-tolerant cultivars, rotational grazing, and mechanical and biological weed control) is actively promoted through various outreach activities with Extension clients.

Impacts: An overall savings of more than \$12,400 was reported by 14 participating counties that adopted IPM. These counties reported an 11-percent average reduction in pesticide use, along with a 16-percent increase in IPM adoption. On average, 909 clients followed IPM-based recommendations provided through WVU-ES. This number represents more than 1,600 acres under improved IPM practices.

Source of Funds: State and grants

Scope of Impact: State-specific

Key Theme 7—Sustainable Agriculture

Brief Description: The demographics of West Virginia farm families are changing. West Virginia farmers are older, and the majority relies on outside income to sustain operations. This fact, combined with the increased pressure to practice more environmentally sound management techniques, forces farming operations to use more sustainable management practices. Adopting a more sustainable approach to managing resources and marketing to their community will assure profitability to farmers and help keep farm families on the farm. Methods of increasing profitability and sustainability are actively promoted through various outreach activities to Extension clients in most counties.

Impacts: Twenty-six farmers attempted on-farm research, and 87 farmers attempted a new sustainable practice that they had not considered before. Ninety-nine farmers developed a program that allowed them to reduce their herbicide use. Thirty of these farmers participated in a study using small ruminants to reduce woody weeds. Eleven producers adopted extended grazing to increase the sustainability of their farming operation. Eighty-eight farmers adopted management changes relating to general sustainable practices, and 125 producers adopted a sustainable management plan. Four farmers applied for farmer-grower grants; two were funded.

Source of Funds: Smith-Lever, state, matching county funds, grants

Scope of Impact: State-specific

Goal 5: Enhance Economic Opportunity and Quality of Life Among Families and Communities

Executive Summary

Goal 5 includes a broad range of topics and programs offered by WVU Extension Service. Thirteen wide-ranging key themes are reported under this goal. Each includes one or more Extension programs. Topics range from community and economic development programs to individual and family development programs. The need for all of these programs is great. WVU-ES continues to find new collaborators so that together we might accomplish more to benefit people in need. Some programs listed below are conducted without federal funds, but we included them because they are a part of our engaged university-outreach effort.

Topics under Goal 5 that impact economic opportunity and quality of life among families and communities are organized by the following key themes: community development, tourism, fire safety, worker preparation, and workplace safety. These themes are used to organize WVU Extension's educational program contributions to community, economic, and workforce development.

Quality of life matters and economic opportunities are intricately related. WVU Extension Service has child care, parenting, and resource management programs that focus on enhancing economic opportunities for families and the quality of family life. In addition, faculty recognize that the two areas influence each other as they partner with others from various segments of the state and community to meet the needs of West Virginia's citizens.

West Virginia's 4-H program is based on the essential elements of positive youth development. The program serves young people in traditional community based clubs, after-school settings, residential and day camps, and special-interest clubs and activities. Special programs are designed to reach at-risk and underserved youths. Accommodations are provided to young

people with disabilities who want to participate in 4-H camps, clubs, project work, and other activities. 4-H opportunities are offered to youths from the age of 5 in the Cloverbud programs through the age of 21 in the collegiate 4-H clubs. Some 55,000 members participate in one or more 4-H programs. One of every five young people in West Virginia between the ages of 9 and 19 participates in one or more WVU-sponsored 4-H events. Youths from all 55 counties attended a county or regional residential 4-H camp. Collegiate 4-H clubs are active at eight state colleges and universities. West Virginia 4-H continues to address important issues facing the young people of today. The volunteers and staff who assist with the educational delivery had additional training in programmatic endeavors fostering the national 4-H mission mandates: science, engineering and technology, citizenship, and healthy lifestyles.

West Virginia 4-H, like its counterparts around the country, is a community of young people learning leadership, citizenship, and life skills. The fourfold development model that 4-H has employed for years continues to serve West Virginia youth well because it emphasizes the development of thinking skills and relationship skills, the promotion of healthy lifestyles, and the need to serve others. State 4-H'ers benefit from learning by doing—the hallmark of experiential learning—as they explore a number of topics through their project work. Unique to West Virginia is the emphasis on residential camping as a powerful educational delivery system. The dedicated volunteers who support the 4-H program participated in training programs this year to learn how to determine if their programs are based on the essential elements of youth development, which include activities that promote belonging, mastery, generosity, and independence.

Plan of Work Performance Goals:

- Enhance people's knowledge and skills to facilitate good community planning and development.
- Help communities strategically plan and implement projects to enhance and develop the community's appearance so it is more desirable to live and work there.
- Develop sustainable community leadership.
- Help communities improve and develop their economic viability.
- Deliver quality, cost-effective training to firefighters and other emergency and safety personnel.
- Reduce safety and health hazards in the workplace.
- Inform labor groups of their responsibilities and rights as workers.
- Empower and strengthen the capacity of families to nurture, support, and guide children to becoming caring, competent, and healthy individuals.
- Increase the quality, affordability, and availability of child-care programs.
- Promote the ability of high school students to practice wise financial resource management.
- Help West Virginia youths reach their fullest potential through the 4-H youth development program.
- Provide educational experiences for youths through the camping program.
- Enhance resiliency of West Virginia youths and families by assisting communities and family support systems.
- Help children—especially those from at-risk populations—acquire the reading skills necessary for success in life.
- Increase the skills of volunteers through participation in Extension programs

Multistate/Integrated Activities—state-specific and multistate

Outputs:

4-H and Youth programs

- Nearly 56,000 members in 4-H community clubs participated in events, educational projects, and community service activities.
- 23,879 West Virginia youths participated in 4-H special interest clubs, which focus on a particular subject such as horses, nutrition, or technology.
- 19,164 West Virginia youths participated in a variety of 4-H school enrichment programs.
- 1,800 youth are involved in 61 after-school 4-H programs.
- 56 4-H Health Club Officers conducted health activities with 1,263 club members.
- The 4-H Health Initiative reached 18,000 youths.
- The ATV Safety program received a \$9,500 grant to expand its activities.
- The West Virginia Cloverbud age was lowered to 5 years of age.
- A West Virginia International 4-H Youth Exchange delegate went to Mexico.
- Charting youth personal development program:
 - 429 youths under age 18 participated in the Charting Program
 - 253 youths completed Charting and received a pin
 - 179 youths attended a Charting workshop
- 18,704 state youths attended day camps, residential camps, or specialty camps in all 55 counties.
- 161 weeks of camp were offered in the state in 2006.
- 165 individuals participated in the Young Adults Conference
- WVU-ES Camping Team continues to research the impact of both emotional and physical safety at camp.
- The 2006 Volunteer Camping Assistant program provided camp counselor and resource training to 51 college-age adults.
- National 4-H ATV Community Safety curriculum was implemented in 2006. The educational curriculum was shared with the TIPS (Transportation Injury Prevention and Safety) program, a collaborative effort between the Nick J. Rahall Institute and the St. Mary's Medical Center.
- 89 agents engaged in the youth, family, and community assessments.
- Five Poverty Simulation workshops had 263 participants.
- 68,416 meals were provided to youths at summer camps.
- Energy Express involved 82 communities in 39 West Virginia counties.
- Energy Express served 3,141 children entering first grade through sixth grade.
 - 67 percent of those children were eligible for free and reduced-price school meals
 - 21 percent required special services through Individual Educational Plans during the school year.
 - 11 percent were minority children
 - 182,178 meals were served
 - 18,846 take-home books were distributed to participants
- 291 youths and 185 adults participated in Reading Partners.
- 362 youths and 147 adults participated in the Family Storyteller program.
- A National 4-H Council grant was obtained to conduct an Art of Leadership Academy to train volunteers in middle management skills.
- 108 Extension professionals and 475 4-H volunteers received training regarding the 4-H Health Officer.

Volunteer Leadership Development

- Volunteer Leadership: 198 programs were presented to volunteers in 29 counties.
- 7,885 adults and 4,073 youths served as volunteers in the West Virginia 4-H program,

- 4-H Volunteer Leadership: 4,727 adult participants and 1,537 youth participants were reached.
- CEOS membership was 5,120 in 51 counties.
- 27 counties reported CEOS members provided more than 290,000 hours of volunteer service. They served as volunteers for 4-H, literacy, family, health, and local community initiatives.
- CEOS trained 3,949 adult program volunteers who then reached 7,409 adults.
- 10 educational topic publications were produced for use statewide by families involved in the CEOS program and by other groups and organizations.
- 688 program volunteers conducted classes or a series of three or more workshops in 34 counties and single workshops in another 28 counties. 845 adult participants and 5,020 youth participants were reached.
- CEOS volunteers planned and conducted an annual conference in October that attracted about 300 participants. Evaluations were positive.

Family Programs

- 89 family-related training activities were held.
- 2,293 participants directly participated in family-related training activities.
- 46 family-related educational materials were produced or updated, including:
 - 10 CEOS lessons
 - 4 W.Va. Early Childhood Quarterly articles
 - 1 finance game
 - 1 Growth Chart
 - 2 Web sites
 - 20 Family Times Newsletters
 - 6 media articles on Celebrating Families
 - 1 RAPP newsletter
 - Family Camp curriculum
- 16 new community-based family program coalitions were established.
- 17 new counties were involved in family-related programs.
- 13 presentations were given by WVU-ES faculty on family-related topics to community and national groups.
- \$273,000 was disbursed to counties through grant money brought in by family programs.
 - HF-HC - \$260,000
 - ACDS - \$3,000
 - Shepherdstown Day Care Center - \$10,000

Community Development Programs

- Extension's county accomplishments included:
 - 21 counties developed curricula
 - 7 developed fact sheets or newsletters
 - 11 developed Web sites or an Internet presence
 - 17 reported 62 new resources
 - 4 developed new funding sources in the amount of \$37,498
- Agents in 13 counties reported working in the First Impressions and Community Design Team initiatives, spending approximately 141 days on these activities. 16 communities in these counties were contacted, and 18 educational programs reached 241 clients.
- Six communities participated in the First Impressions Program, and two communities participated in the Community Design Team program.
- First Impressions final reports were prepared and presented in the communities of Clay, East Wheeling, Matewan, and Union in West Virginia and Point Marion, Pennsylvania.

- Community Design Team final reports were prepared and presented in Matewan and Wellsburg.
- 140 days were spent in conducting 30 leadership development educational programs, reaching 560 clients.
- 30 leadership development curricula were developed, two of which were piloted in two counties.
- More than 13,000 surveys were mailed to households in nine Mid-Ohio Valley counties as part of the COMPASS II study of economic, environmental, educational, recreational, and health matters.
- In Roane County, an initiative focused on how the community of Spencer could develop a local strategy to help revitalize downtown.
- A downtown beautification project was initiated in Harrisville.
- Local government officials and community development organizations were surveyed to assess needs.
- “Downtown Revitalization 101” was presented to new Extension faculty.
- 10 counties expended 294 days on Business Retention, making 1,363 client contacts. They conducted 42 educational programs, visiting 97 businesses.
- 13 counties expended 144 days in working with 17 communities on community appearance. 18 educational programs were delivered to 249 contacts.
- 10 counties spent 114 days on community leadership education, delivering 30 educational programs to 496 clients.
- 11 counties spent 499 days on recreation and tourism programs, which resulted in 14 new enterprises and \$162,000 in increased annual revenue. 205 people attended seminars on recreation and tourism.
- A presentation was developed on Financing Farmland Protection that summarizes the status of farmland protection activities in Berkeley, Jefferson, and Morgan counties.
- Agents in two counties are assisting local governments in farmland preservation.
- At a rural enterprise conference, 118 people learned about business techniques to improve profitability of rural-based enterprises.
- 11 youth attendees went through a step-by-step process in which adults were the customers and youths were the entrepreneurs. Youths learned about starting a business, setting prices, advertising products, and analyzing profit-and-loss statements.
- 16 people attended a land use planning training program in Summers County.
- Strategic planning assistance was provided to Kiahsville.
- An agro-terrorism program was presented to 40 faculty and staff.
- “Regionalization and Governance in the 21st Century” was presented to faculty and staff.
- A heritage publication (“Visit Our Working Farms”) was updated and published.
- Some 30 community leadership development educational programs reached 560 clients.
- 85 people attended two LeadershipPlenty trainings.
- Community Development Institute East had 64 participants.

Tourism

- More than 32,493 youth and adult contacts were made through the heritage and culture education programs originating at WVU Jackson’s Mill.
- 1,237 youths participated in storytelling programs at WVU Jackson’s Mill.
- 25,000 people attended the 2006 Stonewall Jackson Heritage Arts and Crafts Jubilee.
- Extension collaborated with the W.Va. Fairs and Festival Association to plan and implement more than 25 fairs and festivals throughout the state and to create and implement heritage

education programs. WVU-ES also provided assistance to the association by educating legislators about the economic impact of fairs and festivals.

- WVU Extension helps educate more than 50,000 people attending the State Fair of West Virginia.
- More than 59,465 people attended fairs, festivals, and other public events at Jackson's Mill.
- 17 experiential education sessions at various camps, courses, and executive programs reached 892 individuals in group-specific programs.

Fire Safety

- WVU Fire Service Extension (FSE) delivered 234 classes for the Office of Emergency Services (OES) to train 3,331 students. Training was provided to first responders, law enforcement, and hospital personnel. Delivery of hazardous materials equipment around the state to fire departments and hospitals was also completed as part of this project.
- Courses meeting national consensus standards for emergency service were developed and offered, including Fire Fighter I and II; Fire Officer I, II, III, and IV; and Fire Instructor III.
- The second annual advanced "Instructors College" was held in conjunction with the State Fire School. Six classes reached 62 students.
- The West Virginia State Fire School in July reached 270 students from 13 states, who represented 128 organizations. There were 27 classes and 381 enrollments.
- FSE held 464 training classes for 5,781 students. These included contracts with American Electric Power (AEP), Allegheny Power (AP), Dow Chemical, DuPont, Office of Emergency Services (OES), and various airports.
- Aircraft rescue and firefighting training was delivered to 997 students in 71 classes.
- More than 8,824 certificates were issued over the course of the year in collaboration with training partners in more than 865 emergency service courses throughout the state and region.
- WVU-FSE is now participating in a statewide network alert system.
- Work continued on the new Fire Academy at Jackson's Mill. Anticipated relocation date for the program is July 2007.
- A new law enforcement position was filled in May.
- The Annual W.Va. Weekend was held in October at the National Fire Academy in Emmitsburg, Md., in conjunction with Wisconsin firefighters; 150 West Virginia firefighters attended this annual educational training event.
- The first rescue core curriculum class was held in Morgantown. Adding the rescue core curriculum resulted in more students qualifying for Pro-board classes meeting the national consensus standard.

Worker Preparation

- 43 leadership classes were delivered to 760 worker participants.
- Five conferences had a total enrollment of 351.
- Ten safety and health classes were delivered to 134 participants.
- Seven summer schools enrolled 552.
- Five credit classes were taught to 70 students.
- 33 sessions on Social Security Part D reached 1,488 people.

Workplace Safety

- Safety and Health Extension (S&HE) conducted 236 classes for 4,860 participants.
- S&HE conducted its first public disaster site worker train-the-trainer course.
- S&HE's first Teaching Techniques course helped participants achieve Master Trainer status.

- A faculty member was co-investigator of EPA Brownfields training to Brownfields areas of West Virginia.
- A faculty member was co-investigator of NIOSH Mining Safety & Health Grant to study Hearing Protection Device Effectiveness.
- Faculty presentations were given at regional and national conferences (West Virginia Expo; AIHCE, Industrial Hygiene Conference; Priester National Extension Conference)
- S&HE completed 38 regional train-the-trainer safety classes for 453 students. In turn, these trainers trained 3,258 individuals.
- Approximately 130 safety training classes were conducted for WVU employees.

Outcomes:

- The 4-H Health Officer Initiative produced two award-winning curricular products.
- 41 new state and national partnerships have been created due to the 4-H Health initiative.
- A pilot study of 4 counties relayed 47.5 percent of 4-H youth participating in the study say they drink more water because of the 4-H Health Initiative.
- Collegiate 4-H members completed more than 50 hours of service.
- Young Adult Conference had a 65-percent increase in participation.
- 21 collegiate 4-H'ers strongly agreed that participation provided an opportunity for self-determination and that they learned new skills.
- Participants of the 2006 4-H Faculty Regional Training agreed that they would immediately incorporate learned skills in their youth programming.
- A new Cloverbuds curriculum was adopted and disseminated by the State 4-H Youth Development Program office.
- 87 percent of youth campers reported that camp is a physically and emotionally safe environment.
- 77 percent of youth campers indicated they formed a positive relationship with a caring adult at camp.
- 68 percent of volunteer camp staff learned at least three new ideas to plan and conduct camping activities.
- In a pilot regional camp staff training, 100 percent of the participants reported they learned something they would incorporate in their camps this year.
- 2,986 youth participants in the ATV Safety program increased knowledge about safe ATV riding practices.
- 208 youths participating in the CYFAR program increased school attendance.
- 1,462 4-H youths increased knowledge of subject matter covered in 4-H after-school programs.
- 4-H'ers completing livestock projects are more likely to retain membership than those completing other types of projects.
- A research program examining 4-H enrollment showed that if a participant enrolled for two years, he or she was more likely remain a member for a longer period.
- The inaugural Art of Leadership Academy was held for 25 high-potential volunteers at Jackson's Mill in 2006.
- 130 child-care educators received certification: ACDS – 70, HF-HC PREP – 60.
- 565 participants indicated that they have applied or intend to apply family-related concepts in everyday life: 98 HFHC participants served on county commissions, 277 CEOS members took leadership positions in counties, 40 ACDS graduates studied for college degrees, 150 youths opened bank accounts.
- 8,584 participants who increased their knowledge and/or awareness of family-related

concepts, resources and skills – 5,680 CEOS participants; 1,855 “Family Times” Newsletters participants; 104 RAPP participants; 309 Bank at School youths; 636 Financial workshops participants.

- Financial value of volunteer time of participants in family programs (372,500 hours) was \$6,719,00.
- Scholarship money raised and distributed by clients of Extension family programs to help state youths attend college was \$7,720.
- Collaborations were initiated with West Virginia Development Office, W.Va. Main Street Program, and the Center for Rural Pennsylvania, a legislative agency of the Pennsylvania General Assembly.
- 10 communities initiated or implemented improvements, and 12 businesses adopted Extension recommendations.
- One city government reviewed its operations and finances.
- A city received a \$7,880 grant to plant more than 30 trees along its main street and to remove old and diseased trees.
- Three strategic planning processes for development authorities (in Grant, Pendleton, and Tucker counties) each resulted in the formal development of a plan.
- Seven people indicated that they were changing a behavior related to financial management.
- 2,654 participants who received volunteer training reported adoption of change.
 - 7 counties sent newsletters to volunteers.
 - 19 counties engaged in collaboration building.
- A survey assessed the status of volunteer development through Extension-sponsored programs.
 - 49 counties reported changes in knowledge adopted by its participants
 - 43 reported changes in skills
 - 38 reported changes in attitude
 - 36 reported changes in behavior
 - 13 counties developed curricula
 - 19 developed fact sheets and newsletters
 - 22 developed Web sites
 - 10 counties obtained 46 new resources
 - 4 counties developed new funding sources amounting to \$21,845.
- As a result of community development efforts, 11 new businesses were created; 18 businesses were retained, 10 businesses were expanded, and 341 jobs were generated.
- 11 communities and 12 businesses adopted or initiated WVU-ES recommendations on community appearance.
- 42 businesses and 6 communities adopted or initiated Extension’s recommendations on community leadership.
- More than \$90,000 has been obtained through grants, public, and private sponsors to help provide tuition and lodging waivers and to help pay for the expenses of the speakers for community development training.
- West Virginia now has a program providing for continuing education credits to be obtained for the LED program.
- An average of 8 EDA directors received certification each year at Community Development Institute East. Previously, the directors had to travel out of state to obtain their certifications each year.
- CDI East now offers graduate and undergraduate credits, CEUs for social work, the Community Developer exam, and certification as a Community Developer.
- A regional community and economic development summit was held in Ritchie County for citizens to identify their needs, opportunities, and concerns. Organizers say this summit was

the direct result of their participation in CDI East, where they learned community development principles and how to develop partnerships to make things happen in their communities.

- The Fall-Safe evaluation found that a high percentage of the companies in the program would be willing to pay for the program.
- Audit software developed for the Fall-Safe program as a data collection and feedback tool has led to a spin-off company with additional funding from NIOSH.
- WVU-FSE certified 593 individuals in 15 different certifications, including 202 certifications in Fire Officer 1.
- A \$90,000 grant was secured from USDA to do research on agroterrorism.
- The American Council on Education's (ACE) College Credit Recommendation Service reviewed WVU-FSE courses in late October 2005. WVU Fire Service was granted ACE accreditation. A team of content specialists, selected from college faculty, certified that WVU-FSE National Fire Academy (NFA) courses are comparable to college-level courses and may be used as transfer credit at many colleges and universities. ACE, a college course recommendation service, reviewed WVU-FSE to determine the consistency and integrity of the NFA courses the organization delivers. WVU-FSE offers 43 NFA courses taught by 250 adjunct field instructors throughout the state. The review collected information about facilities.

Impacts:

- Of 3,141 children served by Energy Express, 72 percent maintained or increased reading scores as opposed to a typical decrease in reading achievement over the summer. Eighty-three percent of participants with IEPs maintained or increased their competency, and the average child with an IEP gained 4 months in broad reading achievement.
- 58 percent of the volunteers enrolled in the Community Educational Outreach Service improved public speaking skills.
- As a result of the 4-H Dental Health program, 30 percent of the participating youths were reported to brush their teeth more often, nearly 50 percent were reported to drink more water, 34 percent eat more fruits and vegetables, 27 percent drink less soda pop, and 28 percent floss their teeth more often.
- 100 of the collegiate 4-H'ers participating in a research project examining programmatic endeavors reported the program offered an emotionally and physically safe environment.
- The 35 participants of the 2006 VCA training displayed a 26-percent positive change in knowledge and skills pertaining to the training module.
- 1,150 youths participating in the ATV Safety program made positive changes in their riding behaviors.
- As a result of the 4-H Afterschool program, 1,462 youths displayed an increase in knowledge of subject matter covered in the program.
- Participants in the 2006 Regional Training for faculty agreed that training will make them a more effective Extension professional.
- As a result of camp volunteer training, 85 percent of camp volunteers demonstrate an increased awareness and knowledge of camping procedures and programs.
- 1,504 participants indicated that they changed their parenting behavior based on something they read in the "Family Times" newsletter.
- WVDHHR director told Family Resource Networks (FRN) throughout the state to work with RAPP in the coming year. The FRN coordinator joined the RAPP partner group and is working to bring the two groups together.
- An abandoned G.C. Murphy building was converted into a viable business, which became known as Spencer Antique Mall, Arts and Collectibles. After two months of operation, the

Spencer Antique Mall is a viable business supported by the local community with sales of more than \$63,500 in the first 5 months. It provides a location for 42 vendors selling antiques, arts, collectibles, and vintage reproductions. As a result, two new businesses have opened downtown since the opening of the antique mall, and a third business has expanded.

- First Impression impacts have included beautification and cleanup projects, downtown revitalization and restoration projects, improved signage and planning, tourism development projects, improved traffic patterns, and infrastructure development.
- Community Design Team impacts have included design projects, historic preservation projects, funding to interpret sites of historic interest, development of rail-tails, development of walking tours, improved traffic patterns and parking, infrastructure development, historic murals, and funding for improvements to parks and recreation facilities.
- Bruceton Mills has adopted a comprehensive plan.
- Gilmer County developed a Community Development Principles and Practices bulletin board to help with its community development work.
- The Community Development Institute East planning committee now has a member on the International Community Development Council.
- CDI East successfully applied for tax credits through the Neighborhood Investment Program.
- Fairs, festivals, and other public events at Jackson’s Mill resulted in direct expenditures of \$921,720 and an economic impact of more than \$1.556 million for Lewis County, a county that is projected to see a decrease in population of approximately 1.7 percent annually.
- WVU Jackson’s Mill is a significant attraction in the local and regional context. Its direct spending impact of \$2.2 million and the travel and tourism spending impact of \$2.2 million generate a total spending of \$12 million.
- Initial research found that, on average, these festivals generate nearly \$300,000 for the local economy. If you extrapolate our data sample, it indicates that WVU Extension’s involvement in fairs and festivals has a potential economic impact on the state’s economy of \$7.5 million.
- A Fall-Safe pilot study suggests that S&HE’s fall prevention system has succeeded in reducing fall hazards for Fall-Safe contractors and should reduce fall injuries accordingly.

State Assessment of Accomplishments: Extension’s efforts in community and economic development and safety continue to be critical to the future economic health and quality of life for West Virginia businesses and communities. Quality programs that are responsive to community needs and opportunities continue to be developed and delivered. The Strengthening Families programs are having an impact in promoting healthy child-care practices, healthy family interaction and relationships, and responsible financial resource management among high school students. A network of partners throughout the state supports WVU-ES’s programming efforts. As the largest youth development organization in West Virginia, 4-H is growing in number of children served and delivery of quality programs. Currently, the West Virginia 4-H program is reaching one out of every five 4-H age (9-19) youths, with an increase of more than 5,000 West Virginia youths across the state. WVU-ES continues a tradition of experiential learning with programming content that is relevant to the needs of youth in the 21st century.

Total expenditures by source of funding and FTE for goal

Federal Smith-Lever	\$2,200,000	FTE 37.00
State matching	\$2,200,000	FTE 37.50
County matching	\$ 300,000	FTE 10.00

Key Theme 1—Community Development

Brief Description: Program efforts in support of community development focused on strengthening community resources and promoting local and regional economic development opportunities. To facilitate program contributions to these strategies, program teams were utilized to (1) develop community leadership capacity, (2) enhance state and local government decision-making, (3) promote downtown revitalization, (4) support rural and small business development, (5) encourage appropriate decisions on land use and other public policy issues, and (6) improve community preparedness for disaster response. The resultant program efforts were designed to benefit multiple client groups, including community leaders and officials, businesses and entrepreneurs, convention and visitors' bureaus, community-based organizations, and community members.

The community leadership development program strengthens the skills and abilities of existing leaders and develops new leaders at the grass-roots level. Existing and new leaders improve the skills and abilities they need to contribute to community resource development, community decision-making processes, and economic development opportunities. Program activities included LeadershipPlenty train-the-trainer for faculty, curriculum development, various leadership education programs, and a three-year Community Development Institute East (CDIE).

Local governments in West Virginia face many challenges. Many counties and municipalities lack full-time professional managers to guide day-to-day operations, and to prepare for future situations. Even where professional staff is present, they usually have too much to do and too few resources to be effective in meeting urgent needs. To address these needs, Extension provides educational activities and research useful to local governments, including county commissions, constitutional officers, city and town council members, mayors and managers, development authority directors and board members, members and staff of local and regional boards and commissions, and state government elected and appointed officials. Program activities included educational programs on strategic planning, economic development, homeland security, organizational studies, and research reports.

The appearance and aesthetics of many communities have suffered, and downtown areas have deteriorated to the point where they are more of a liability than an asset. More communities are recognizing the economic and social value of their downtowns as commercial, civic, and government centers that reflect the community's heritage and identity. The downtown revitalization program is helping the state's small towns and cities to initiate revitalization programs that improve a community's capacity to attract businesses and make it a more desirable place to live, work, and visit. Program activities included First Impressions visits, Community Design Team visits, and community planning technical assistance.

West Virginia has one of the lowest per-capita income levels in the United States and low labor market portion rates as well. The need for more and better-paying jobs and economic development is universally accepted throughout the state. Extension provides assistance to "grow" local businesses through business retention and expansion and the development of local entrepreneurs. This is done by supporting and further developing existing businesses and providing support for individuals who wish to start their own businesses. Program activities include business retention and expansion, entrepreneur development and support, business-relevant policy analysis, and education programs.

Impacts and Accomplishments:

- Agents in 3 counties spent 47 days generating 914 direct, and 2,350 indirect contacts on downtown revitalization efforts, which also involved 200 youths.

- Seven programs on downtown revitalization were provided to community-based organizations and stakeholders.
- A study, “The Vitality of West Virginia’s Downtowns,” was published and distributed.
- Two fact sheets were developed— “Downtown Walk-ability” and “A Guide to Promoting Downtown Business Districts.”
- Downtown Revitalization: presented at CDI-East, September 25, 2006, Charleston, W.Va.
- Agents made 47 direct and 55 indirect contacts in the First Impressions program.
- Agents in 29 counties spent 342 days generating 28,614 direct, and 146,030 indirect adult contacts, and 10,559 direct and 8,247 indirect youth contacts at fairs and festivals.
- County agents had direct contact with more than 1,000 adults, indirect contact with more than 2,400 adults, and 140 direct contacts with youths working with Community Design Team efforts.
- Agents in 3 counties expended 42 days generating 545 direct and 562 indirect contacts on business retention and expansion.
- Agents in 5 counties spent 174 days generating 377 direct and 3,250 indirect contacts related to government planning or public policy.
- Agents in 15 counties spent 482 days generating 2,802 direct and 6,986 indirect adult contacts, and 278 direct and 103 indirect youth contacts in leadership development programs.
- Extension faculty and staff also participated in 92 professional development opportunities: the state volunteerism conference, leadership symposium, Community Development Institute East, Brushy Fork Leadership Institute, and others.
- A total of 85 partnerships were developed by county faculty and staff from 12 counties.
- Core and specialized leadership curriculum was developed.
- A brochure of Extension leadership development courses was developed, along with an evaluation instrument. A CD of presentations was produced.
- Four action plans were developed with community members to initiate change projects to improve their town’s appearance.
- Fifty stakeholders, community-based organizations, and elected officials were contacted.
- Thirty residents became actively involved in public-private partnerships dedicated to community development.
- Three community-based organizations became involved in public-private partnerships dedicated to community development initiatives.
- Four First Impression action plans were developed with community members to initiate change projects to improve the town's appearance.
- Two communities participated in the First Impressions Program during 2006 (Hardy County Schools and Belington, W.Va.), involving 10 volunteer visitors, two educational programs, and more than 200 local citizens. The findings of each program were disseminated through public presentations and final reports to individual communities.
- First Impressions community projects have included beautification and cleanup projects, downtown revitalization and restoration projects, improved signage and planning, tourism development projects, improved traffic patterns, and infrastructure development.
- Agents worked with 449 elected officials and trained 549 volunteers of fairs and festivals.
- 85 reports were disseminated through 49 fair and festival boards.
- 53 action plans were developed for fair and festival improvements.
- Seven Community Design Team trainings were offered.
- Several WVU Extension agents and state faculty actively participated on three Community Design Teams during 2006 (Point Marion, Pa., Union, W.Va., and Mount Hope, W.Va.), involving three educational programs, the presentation of final reports, and more than 300 local citizens.

- Six elected officials attended a Business Retention and Expansion workshop, and 12 reports were disseminated.
- Extension programs reached 143 people in local government planning and public policy training.
- Extension faculty and staff taught a total of 17 workshops at statewide meetings to a total audience of 492 people; 74 percent of the participants indicated an increased awareness of leadership development programs, and 72 percent indicated they had an increased knowledge of leadership development programs after attending these workshops.
- A curriculum on board development was piloted the trainings with three organizations: Monroe Health Board of Trustees, Wetzel County Master Gardeners, Mineral County officials and community members. The curriculum was taught to four other groups.
- 48 leadership workshops, as requested by groups and individuals from counties. A total of 627 persons participated in these workshops.
- The community leadership team and First Commitment Corporation have worked on developing a certification process for board members, how best to teach board trainings, and how to form an association for nonprofit groups.
- Extension and First Commitment Corporation partnered with the W.Va. Secretary of State's Office to provide 6 board trainings in various locations throughout the state.
- Leadership for Women was taught at the State Volunteerism Conference to 65 people. Evaluations indicated that all participants gained knowledge they would use immediately.
- Putnam County Extension agent taught a class at the state Solid Waste Authority Conference on how to conduct effective meetings, how to develop agendas, and how to use motions for effective meetings. Fifty-four (54) people completed an evaluation, and 100 percent of the participants indicated the workshop helped them to understand the topic better, provided relevant information that would be of immediate use to them, and related program content to real-life situations.
- Community Development Institute East trained 56 people.

Key Theme 2—Tourism

Brief Description:

Tourism generates jobs and income for communities and individuals throughout the state. WVU Extension delivered an online Rural Tourism Development course to help communities to develop tourism activities and events. WVU-ES assisted in evaluating and improving fairs and festivals to make these events better and increase their income-generating potential. Extension professionals also contributed to the planning of many county fairs and festivals. Extension has partnered with the WVU Division of Forestry to develop a network of forest heritage tourism destinations in the eastern part of the state.

Heritage and cultural education programs provide participants with living history exhibits and experiential education components, including historic site tours, a working smithy, and a grist mill. Natural heritage components include birding and wildlife habitat and a skins program. Early discussions have taken place with The Mountain Institute (to provide staffing and programming expertise) and WVU's Parks, Recreation, and Tourism Management (to look at class offerings and to market the programs) to begin an environmental education overnight program at Jackson's Mill.

The main goal in heritage programming is to help youths and adults understand and appreciate Appalachian history and society by developing and portraying accurate depictions of selected characters and their historic period. Involvement in fairs and festivals allows Extension to

contribute and market services and programs directly in many counties. These programs involve direct collaboration among various nonprofit groups that conduct fairs and festivals in the state.

One major component of the team activity document has been started—a formal process of archiving historic documents from the Jackson’s Mill Museum and State 4-H Camp. This project involves working with Jackson’s Mill archives and the Jackson’s Mill Heritage Foundation.

Impacts and Accomplishments:

- More than 32,493 youth and adult contacts were made through the heritage and culture education programs originating at WVU Jackson’s Mill.
- More than 59,465 people attended fairs, festivals, and other public events at Jackson’s Mill, resulting in direct expenditures of \$921,720 and an economic impact of more than \$1.556 million for Lewis County, a county that is projected to see a decrease in population of approximately 1.7 percent annually.
- WVU Jackson’s Mill is a significant attraction in the local and regional context. Its direct spending impact of 2.2 million and the travel and tourism spending impact of \$2.2 million generate a total spending of \$12 million.
- A total of 1,237 youths participated in storytelling programs at WVU Jackson’s Mill.
- In collaboration with the board of directors of the 2006 Stonewall Jackson Heritage Arts and Crafts Jubilee, Jackson’s Mill helped plan and implement a festival attended by more than 25,000 people.
- WVU Extension is involved in more than 25 fairs and festivals throughout the state, helping to create and implement heritage education programs in each.
- Initial research found that, on average, these festivals generate nearly \$300,000 for the local economy. This indicates that WVU Extension’s involvement in fairs and festivals has a potential economic impact on the state’s economy of \$7.5 million.
- WVU Extension works directly with the W.Va. Fairs and Festival Association to have a presence at the 2006 Fairs and Festivals Day at the Legislature and other events across the state. The group educated legislators about the economic impact fairs and festivals make in West Virginia.
- WVU-ES helped educate more than 50,000 people during the State Fair of West Virginia.

Source of Funds: Smith-Lever, state, county matching, grants, fees

Scope of Impact: State-specific; regional for Stonewall Jackson Jubilee

Key Theme 3—Experiential Education

Brief Description: The mission of the Experiential Education Program Team is to create a diverse population of youth and adult educators committed to improving the lives of West Virginians. The initiative centers on promoting and improving leadership skills among youth educators and volunteers by involving them in hands-on experiential education. The team is committed to elevating the knowledge and skills of educators, trainers, facilitators, therapists, and volunteer leaders through the use of educational workshops, team-building curriculums, group initiatives, portables, and a low-ropes course with 17 elements. To achieve its mission, the Experiential Education Team conducts workshops quarterly to address the needs of experiential educators and practitioners.

The short-term goal in 2006 was to elevate the knowledge and skills of West Virginia educators, trainers, facilitators, therapists, and volunteer leaders through the use of educational workshops, curriculum development, and research.

Impacts and Accomplishments:

- Trained 892 individuals in 17 targeted programs at various camps, courses, and executive programs.

Source of Funds: Smith-Lever, state, and fees

Scope of Impact: State and regional

Key Theme 4—Fire Safety

Brief Description: WVU Fire Service Extension (WVU-FSE) provides training and assistance to fire, rescue, law enforcement, military, and private industry first responders. The goal is to improve emergency response preparedness and reduce life and property losses. Classroom training programs and “in the field” learning opportunities are featured. This training—offered in state, local, and regional settings—includes a broad range of topics in nine emergency services initiative areas, involving more than 150 curriculum classes.

Impacts/Accomplishments:

- The third annual advanced “Instructors College” was held in conjunction with the State Fire School. Six classes were held, with 19 students attending.
- West Virginia State Fire School in July had 271 students attending 29 classes.
- Aircraft rescue and firefighting training was delivered at 11 airports to 694 students.
- Six fire brigade leadership classes were held, attended by 105 students.
- A total of 191 firefighters received Pro-Board certification.
- The annual W.Va. Weekend, an educational training event at the National Fire Academy in Emmitsburg, Md., was attended by 94 state firefighters.
- Five Advanced Interior/Exterior Fire Brigade Ref. NFPA 600/OSHA 1910 classes reached 62 students.
- Work continued on constructing the new Fire Academy at WVU Jackson’s Mill. Anticipated relocation of the program is July 2007.
- Research on agroterrorism was disseminated. Funded by a \$90,000 grant from the USDA, the primary focus of this research was to develop a training program in agricultural security, including topics dealing with illegal labor force; hazards from illegal methamphetamine labs; issues related to weapons caching, militia staging, and exercising in rural areas; methods for improving observation; methods for reporting suspicious activity in a meaningful manner; and methods for communicating with various first responder agencies.

Source of funds: State, fees, and grants

Scope of Impact: State, regional, and national

Key Theme 5—Worker Preparation

Brief Description: Leadership training is an ongoing need for rank-and-file trade unionists, local union officers, full-time staff members, and their organizations throughout the state, region, and nation. The Institute for Labor Studies and Research (ILSR) provides teaching, research, and service for these individuals and organizations through its courses, conferences, and weeklong summer schools. These educational efforts cover a variety of topics, including collective bargaining, grievance handling, arbitration, steward training, leadership training, safety and health, political action, and issues of importance to West Virginia workers and their unions, such as health care, retirement, Workers’ Compensation, Social Security, Medicare Part D, and women’s concerns. ILSR is also dedicated to educating young people who will be entering the workforce.

Impacts/Accomplishments:

- 36 leadership classes were delivered to 823 participants.
- 4 conferences had a total enrollment of 267.
- 10 safety and health classes were delivered to 435 participants.
- 7 summer schools enrolled 468.
- 8 youth classes involved 416 students.
- 7 sessions on Medicare Part D reached 287 people.

Source of funds: State, fees, grants, private gifts

Scope of impacts: State, regional, national

Key Theme 6—Workplace Safety

Brief Description: Improved workforce safety is one of the goals of WVU’s Safety and Health Extension (S&HE). Educational offerings include fall protection training for construction workers, disaster-site safety courses for construction outreach safety trainers, train-the-trainer safety courses for construction and general industry trainers, safety training for residential construction workers and supervisors performing modular home installations, and safety training for WVU employees.

- Safety and Health Extension conducted 254 classes for 5,381 participants.
- Developed a Build Safe for residential construction fall protection training.
- Continued to provide Disaster Site Worker train-the-trainer courses.
- Interviewed by the Discovery Channel about the Sago Mine Disaster.
- S&HE conducted its first Confined Space train-the-trainer course to help participants achieve Master Trainer status.
- PI on OSHA Residential Fall Protection Training Grant.
- PI on OSHA Landscapers and Horticultural Working Training Grant
- Faculty presentations at regional and national conferences (CSC, ASHI, IOSH/NORA)
- Approximately 146 safety training classes were conducted for 3,751 WVU employees.
- S&HE completed 46 regional train-the-trainer safety classes for 860 students. In turn, these trainers trained 14,982 individuals.
- WVU S&HE, in partnership with the George Meany Center and CPWR, administered the largest number OSHA Outreach cards and trained and conducted the second largest number of OSHA Training Institute courses in 2006.

Source of funding

State, Grants, Fees, OSHA, CPWR (NIOSH), IUOE (NIEHS), EPA

Scope of impacts

State, Regional, National

Key Theme 7—Child Care

Brief Description: *Educational programs designed for child care issues* addressed the issue of child-care provider training. This is a relevant issue in West Virginia because of specific 49 challenges such as the rural nature of the state, the large number of limited-resource families, and the scarcity of formal and affordable child-care programs. The goal of the child-care provider program is to increase the quality of child care. The objective is to increase providers’ knowledge, skills, and abilities in providing developmentally appropriate child-care practices. The goal and objective are accomplished in three ways: (1) local training workshops that provide skill-building experiences to those who work with young children and/or parents; (2) support of infrastructures by helping local child-care facilities and/or networks with strategic planning; and

(3) a state partnership with the *Apprenticeship for Child Development Specialists (ACDS) Program*, a statewide infrastructure for high-quality training courses.

Impacts and Accomplishments:

- ACDS students reached approximately 700 children and their families each day. ACDS teaching has a multiplier effect since each child-care provider reaches from 4 to 12 children and their families.
- Program directors reported observing increased self-confidence among ACDS students.
- Extension gains new clients who would never otherwise access our programs.
- ACDS students are attracted to these courses because they may transfer coursework into college degree programs. This enhances the value of Extension’s program offerings.
- Teaching fees (\$1,300/semester) augment professional development and program funds.
- WVU-ES gains recognition as an advocate for child-care education because of its alliance with ACDS.
- Increasingly, the *West Virginia Childhood Quarterly Magazine* editor relies on WVU-ES for quality, relevant content. This is an important new venue for publication and reaching new audiences hungry for educational materials. Two WVU faculty articles were included in 2006.

Source of funding: Smith-Lever, state and county and local matching

Scope of Impact: State specific

Key Theme 8—Parenting

Brief Description: The parenting program initiatives addressed the unprecedented need to support parents by strengthening their parenting skills and helping them promote their children’s educational achievement, physical health and well-being, and social adjustment. The specific objective was to increase families’ capacity to nurture, support, and guide children to become caring, competent, and healthy individuals. Several strategies were used to accomplish the objective:

“Family Times” Newsletter served as the foundation of the parent education program in several counties. Ten issues were distributed to 1,474 parents of kindergarten children. Each issue focused on a topic of concern to parents. Children’s books supporting the topics were placed in lending libraries for parents’ use.

The focus of the *Healthy Family/Marriage Relations Initiative* was to strengthen families and marriages because children need to experience healthy interpersonal family relationships and have positive role models. West Virginia has eight coalitions across the state.

Relatives as Parents Program (RAPP) provided support services to grandparents and other relatives who are raising a child for a member of their family. The program seeks to increase the educational, social, emotional, and material support for relatives functioning in the role of parents and trains support group facilitators.

Impacts and Accomplishments:

- 89 parenting-related training activities held.
- 2,293 participants directly participated in family-related training activities.
- 46 parenting-related educational materials produced or updated including:
 - 10 CEOS lessons
 - 4 *W.Va. Early Childhood Quarterly* articles

- 1 finance game
- 1 growth chart
- 2 Web sites
- 20 “Family Times” newsletters
- 6 media articles on Celebrating Families
- 1 RAPP newsletter
- Family Camp curriculum
- 16 new community-based family program coalitions were established.
- 17 new counties became involved in family-related programs.
- 13 presentations on family-related topics were made by WVU-ES faculty to community and national groups.
- \$273,000 was disbursed to counties through grant money brought in by family programs
 - HF-HC - \$260,000
 - ACDS - \$3,000
 - Shepherdstown Day Care Center - \$10,000
- 130 child-care educators received certification: ACDS – 70, HF-HC PREP – 60.
- 565 participants indicated that they have applied or intend to apply family-related concepts in everyday life: 98 HFHC participants served on county commissions, 277 CEOS members took leadership positions in counties, 40 ACDS graduates studied for college degrees, 150 youths opened bank accounts.
- 8,584 participants who increased their knowledge and/or awareness of family-related concepts, resources and skills; 5,680 CEOS participants; 1,855 “Family Times” newsletter recipients; 104 RAPP participants; 309 Bank at School youths; 636 Financial workshops participants
- Financial value to the state of volunteer time of participants in family programs (372,500 hours) was \$6,719,00.

Source of Funds: Smith-Lever, other federal, state, and county matching

Scope of Impact: State-specific

Key Theme 9—Family Resource Management

Brief Description: An estimated 70 percent of students at four-year colleges have at least one credit card. The revolving debt balance on these cards averages more than \$2,000. Credit card debt has forced many students to cut back on their courses or to spend more time working to pay off their debts. It is essential in our fast-moving society for people have some working knowledge of basic financial planning. When they become adults, today’s teenagers will be required to take more personal responsibility for actively managing their finances than people of previous generations. The High School Financial Management Planning Program was implemented to address these needs. The program contains all needed resources for teaching a comprehensive series of financial management lessons to high school students. In a national partnership agreement, Extension is the primary deliverer of the program. The main objective is to increase high school students’ skills in financial management.

Impacts and Accomplishments:

- 636 individuals increased their knowledge of how to manage money.
- One WVU-ES educational program on credit was written and published.
- The pre- and post-tests of 23 CEOS members assessed 15 aspects of identity theft prevention. In all but three categories, at least one, and up to 18, participants indicated that they are involved in unsafe behavior related to identity theft. In all those categories, at least one, and up to 16, stated that they will change the behavior. The range of

percentages of those willing to change from an unsafe practice was 20 to 100 percent. The most pronounced finding, by number of members willing to change (16 out of 18), was in carrying their social security card in a wallet.

- Written comments on CEOS evaluations indicate the belief that they learned sound money management principles.
- The money management 4-H class at Teen Leaders Weekend taught youth participants to consider future needs before making purchases.
- 81 percent of CEOS members who attended the workshop agreed or strongly agreed that the information increased their knowledge of credit card use.
- In the “Bank at School” program, 54 percent of the children attending now have a personal savings account; 54 percent said that they would continue to put money into their savings account; 28 percent learned about credit cards and using them wisely; 21 percent learned about writing checks; 30 percent learned about budgeting and money management; 24 percent said they would use what they had learned about checking accounts in their lives.
- Money management training will be incorporated into 4-H programming as well as after-school programs.

Source of Funds: Smith-Lever, state and county matching, grants

Scope of Impact: State-specific

Key Theme 10—Literacy

Brief Description

Energy Express, a six-week reading and nutrition program, focused on the “summer slide” children experience in reading skills over the summer. The program uses AmeriCorps and other volunteers to mentor children in first through sixth grades to help them maintain or increase reading levels. Children who are not reading on grade level by fourth grade are more likely to drop out of school, have low earning capacity as adults, and engage in risk behaviors. In addition, the program also addresses the low-income child’s need for sustenance over the summer months, when the free and reduced-price school meals are not available. Now in its 12th year, this award-winning program is one that lifts up each of the five points of America’s Promise.

The *Family Storyteller* program is designed to increase reading abilities of low-literacy parents. The program enriches parent-child interaction in the home environment and enhances the language and lifelong learning skills of both parent and child. Family members attend six 90-minute workshops dealing with how to read to children and providing time to practice reading skills. The low-income parents and their preschool children receive books and art supplies to use at home.

Reading Partners trains volunteers to read with children and to build a “print-rich” environment to promote independent reading. In West Virginia, four of every 10 fourth-grade students experience difficulty in reading. Adults and teens are trained with this program to encourage and support early readers. Currently, an effort to train 4-H youths as *Reading Partners* has led to positive outcomes of reaching 4-H’ers at camps and trainings across the state. These 4-H youths are prepared to serve as reading partners when baby sitting, in the school setting, or independently.

Impacts and Accomplishments:

- 82 communities in 39 counties in West Virginia offered Energy Express in 2006.

- 3,141 children entering first through sixth grades were served by the program.
 - 67 percent of those children were eligible for free and reduced-price school meals.
 - 21 percent required special services through Individual Educational Plans during the school year.
 - 11 percent were minority children.
 - 72 percent maintained or increased reading scores, and the average child gained 5 months in broad reading achievement as opposed to a typical decrease in reading achievement over the summer.
- 291 youths and 185 adults participated in Reading Partners.
- 147 youths and 362 adults participated in Family Storyteller.

Source of Funding: Federal, state, county, local

Scope of Impact: State specific

Key Theme 11—Youth Development – 4-H

Brief Description: Youth development is a natural process of developing one’s capacities.

Although this development occurs through the youth’s daily experiences with people, places, and possibilities, it is far too important to be left to chance. Positive youth development occurs from an intentional process that promotes positive outcomes for young people. Youth development takes place in families, peer groups, schools, neighborhoods, and communities.

WVU Extension Service offers local and state 4-H programs built on the research of land-grant institutions including the essential elements of youth development (an ongoing relationship with a caring adult; safe places to learn and grow; marketable skills through education; a healthy start; and an opportunity to give back through community service).

4-H is alive and well in West Virginia. More than 55,000 members strong, *4-H community clubs* in all 55 counties offer a program year full of events, educational projects, and community service activities. Youths ages 9 to 21 meet to learn, grow, and participate in camps, projects, travels, and presentations in state, national, and international gatherings. The 4-H program is club-based, with nearly all members belonging to a local community club. These clubs have officers and monthly meetings. Clubs also participate in community service and other projects and recreational activities that the members choose.

Every member works on at least one individual project during the year. There are more than 100 from which to choose. Members may also participate in county, state, and national programs and events, such as poster contests, judging events, residential camping, public speaking contests, college awareness programs, officers’ training school, project exhibits, and community service.

In 2006, 23,879 West Virginia youths participated in *4-H special-interest clubs*, which focus on a particular subject like horses or nutrition. West Virginia now has two 4-H Military special-interest clubs that offer a support network for children of military service personnel.

Another 2,471 young people participated in *school-based clubs*. School-based clubs make the 4-H program more accessible to children from low-income areas who do not often have access to extracurricular programs due to transportation issues. These types of clubs also offer more opportunities for teenage members to engage in leadership positions, often working as project leaders and mentors.

Also in 2006, 19,164 West Virginia youths participated in a variety of *4-H school enrichment* programs ranging from energy and nutrition to creative arts. Nutrition education programming has increased with the doubling of the number of youth nutrition outreach instructors working with the school systems to enhance the nutrition education being offered.

At least 30,000 state children are not involved in stimulating environments during the after-school hours. Lack of after-school programming can result in lost opportunities for social, physical, and intellectual development. And the loss is even greater in high-poverty or high-risk communities.

Demand for *4-H Afterschool* is growing. More than 1,800 youths are involved in 61 4-H Afterschool programs across the state. WVU Extension leads the West Virginia Statewide Afterschool Network, which includes private and public agencies and organizations interested in ensuring that children spend after-school hours in constructive activities. This network works with local communities to promote the development and expansion of after-school programs that support faith-, community-, and school-based programs. WVU Extension's CYFAR initiative supports the work of the statewide network. This grant is being used to fund pilot 4-H Afterschool programs in Cabell, Mercer, and Kanawha counties. These pilot programs will enable WVU Extension to provide after-school educators the tools to build high-energy programs that will improve youth's after-school educational experiences.

4-H Curriculum: State Youth Technology Team

The West Virginia State Youth Technology Team has been reconfigured and reestablished to include 18 youths, three faculty members, and a volunteer working together to inform and educate others about up-to-date technology ranging from computer systems to digital programming.

4-H Curriculum: Department of Energy Pilot Study

WVU 4-H Extension personnel attended a second training session in their ongoing work for the U.S. Department of Energy pilot project, which involves seven states. The curriculum centers on energy-related science and math.

4-H Curriculum: ATV Safety Research

West Virginia's ATV death rate remains the highest in the United States. West Virginia University Extension is striving to eliminate the risky behaviors that result in injury and death for ATV riders. Additional \$9,500 in grants was secured to expand the ATV safety training.

4-H Curriculum: Agricultural Education – Judging Teams

Participation in competitive events helps 4-H'ers make and defend decisions, speak in public, gain subject matter knowledge and skills, and learn to deal with competitive situations. In 2006, West Virginia offered competitions in forestry, horse, livestock, horticulture, and land and homesite judging.

Global Education

WVU Extension's responsibility is to help West Virginians become globally aware. This means seeing and understanding that the United States, West Virginia, and our citizens are part of the global dimension and not separate from it. Extension's global education programs meet two criteria: (1) to assist our organization in accomplishing its strategic goals, and (2) to result in tangible benefits to WVU citizens and communities. The newly established Global Education Team has established program priorities for a WVU-ES global education program. The team is preparing a workshop on global interdependence and awareness to conduct for Extension

educators and local partners. A graduate course was designed and presented to increase educators' and schools' capacity to teach Hispanic students and communicate with Hispanic students more effectively.

Camping

West Virginia 4-H has gone camping for more than 75 years. In collaboration with local volunteers, WVU-ES operates one of the largest residential camping programs in the country. Last year alone, 11,308 youths attended day camps, residential camps, or specialty camps in most of the 55 counties. What has been learned in 4-H club meetings throughout the year is refined at camp. The campers range in age from 9 to 21, encompassing the full spectrum of our target audience. Classes and instruction are grounded in research-based ideologies that reinforce the youth development component of our mission statement.

Part of the leadership team at a camp is the volunteer camping assistant (VCA). The college-age VCA works with camp staff to ensure a positive experience for the campers. The VCA leads programs, teaches songs, instills values, and fosters a vibrant and inclusive environment that adds to the rich tradition of 4-H camping in West Virginia.

Personal Development: Charting

Much as a ship's captain charts the course of his ship across an ocean, 4-H Charting helps an individual chart a course over a lifetime. To aid 4-H members in their life's course, a trained leader helps a small group of individuals map out goals and desired outcomes in the areas of self-understanding, critical thinking and decision-making, communication, leadership, and future work.

Personal Development-4-H Health Initiative

There is a critical need in West Virginia to take more inventive and aggressive strategies to reverse the current youth health trends. WVU-ES has the capacity, partnerships, and resources to effectively address youth health issues. To counter some barriers to optimal health, the 4-H Health Initiative, a Dental Health Project, and the Physical Activity Project were strengthened. The *4-H Club Health Activity Guide*, the *4-H Club Health Planner* and the agent resources CD were supplied to each county to distribute to every 4-H youth in West Virginia.

Impacts and Accomplishments

- 82 communities in 39 West Virginia counties offered Energy Express in 2006.
- 3,141 children entering first through sixth grades were served by the program.
 - 67 percent of those children were eligible for free and reduced-price school meals.
 - 21 percent required special services through Individual Educational Plans during the school year.
 - 11 percent were minority children.
 - 72 percent maintained or increased reading scores as opposed to a typical decrease in reading achievement over the summer.
- 291 youths and 185 adults participated in Reading Partners.
- 147 youths and 362 adults participated in Family Storyteller.
- Nearly 55,000 members in 4-H community clubs participated in events, educational projects, and community service activities.
- 23,879 West Virginia youths participated in 4-H special clubs, which focus on a particular subject such as horses, nutrition, or technology.

- 19,164 West Virginia youths participated in a variety of 4-H school enrichment programs.
- WVU-ES received a \$9,500 grant to expand ATV Safety curriculum.
- The ATV educational curriculum was shared for the third consecutive year with the TIPS (Transportation Injury Prevention and Safety) program, a collaborative effort between the Nick J. Rahall Institute and the St. Mary's Medical Center.
- Our International 4-H Youth Exchange (IFYE) delegate returned from Germany and toured the state with a PowerPoint presentation that reached more than 12,000 4-H and public school youths and adults.
- The Community Educational Outreach Service (CEOS) international scholarship recipient prepared and disseminated educational pamphlets and lesson plans on her home country of Peru. Her tour of the state and educational materials reached more than 3,500 CEOS members and other West Virginians.
- CHISPA, a Spanish immersion program for students, was conducted for more than 300 middle school students from five counties in north central West Virginia.
- A special interest 4-H club in Berkeley County has been created with a focus on Hispanic heritage and cultures.
- The 4-H Youth Development Unit implemented a monthly series of brown-bag presentations on global topics and issues for faculty and staff on campus.
- 305 students attended the daylong Spanish Immersion program, CHISPA.
- 161 weeks of camp were offered in 2006.
- 11,308 youths attended day camps, residential camps, or specialty camps in all of the state's 55 counties.
- The statewide 4-H camping program offered more than 1,200 classes at county camps.
- WVU-ES Curriculum Team researches the impact 4-H has on youth by focusing on one essential element at a time. This year, the element was generosity.
- 429 youths took charting in 2006 and 253 completed the program.
- 100 percent adopted a change in behavior as a result of the charting program.
- 268 adult volunteers helped teens complete the charting program.
- Two award-winning publications were created for the Health Initiative.

Source of Funds: Federal, state, county, local

Scope of Impact: State-specific and regional (for camping institute)

Key Theme 12—Leadership Development

Brief Description: In West Virginia, the *4-H Youth Development Program* has more than 7,600 volunteers who work with youths and deliver many Extension youth development programs and activities.

In addition, hundreds of individuals participate in other Extension education programs, which they “pay for” by providing volunteer service. WVU Extension Service has an obligation to invest in its volunteers and provide them with the tools they need to perform to their fullest potential.

Volunteer leaders are accepting more responsibility for planning and delivering Extension programs on local, state, and regional levels. Volunteers are no longer just “doers”; they have become decision-makers, critical-thinkers, and multitask managers. Maintaining a smooth-running, informed, responsible volunteer management program is difficult, and without volunteers helping to conduct Extension programming, the probability for program successes is limited.

The *CEOS* (Community Educational Outreach Service) engages adults in continuing education, leadership development, and community and self-enrichment efforts. The purpose is to provide education to meet individuals' desire to improve the quality of their living and to inspire families and individuals to make learning a lifelong process. CEOS, in partnership with Extension, strives to strengthen individuals and families through educational experiences, leadership development opportunities, and community involvement for the betterment of families and society as a whole.

The annual *4-H Volunteer Leaders' Weekend* allows volunteers to share experiences, resources, and knowledge that they will use in their communities and 4-H clubs.

Local Government Activities

Support from local governing bodies is vital to sustaining Extension programming. Many county offices receive funding, office space, and other resources from county commissions and other local governing entities. It is highly beneficial that Extension's volunteers be aware of who is in their county government and whom they may call for assistance when funding from federal and state sources is not adequate.

Impact and Accomplishments

- 688 program volunteers conducted classes or a series of three or more workshops in 34 counties, and single workshops in another 28 counties. 845 adult participants and 5,020 youth participants were reached. Of that number, 2,654 reported adoption of change.
 - Seven counties sent newsletter volunteers.
 - 19 counties engaged in collaboration building.
- A survey assessed the status of volunteer development through Extension-sponsored programs.
 - 49 counties reported participants adopted changes in practices.
 - 43 reported changes in skills.
 - 38 reported changes in attitude.
 - 36 reported changes in behavior.
- Along with change comes a need for new and/or different resources.
 - 13 counties developed curricula.
 - 19 developed fact sheets and newsletters.
 - 22 developed Web sites.
 - 10 obtained 46 new resources.
 - 4 developed new funding sources amounting to \$21,845.
- CEOS members in 26 counties reported they volunteered 372,500 hours of service at a value of \$6,719,000.
- CEOS volunteered to support nine major WVU Extension programs in the state.
- CEOS members support local community service activities.
- CEOS members raised money to provide a number of scholarships, which resulted in individuals being able to attend college. The total amount distributed was \$7,200. The scholarships included:
 - An international scholarship of up to \$3,500 sponsored Romina Bianco's (Peru) study at WVU.
 - Family and Consumer Sciences scholarships (\$500) to two students (sophomore or above) enrolled in WVU institutions of higher learning in home economics or related fields.
 - Nursing scholarship (\$500) for a sophomore or above enrolled in a nursing baccalaureate program.

- L.A. Toney Scholarship (\$500) given in alternating years to West Virginia State University and Bluefield State College.
- Older 4-H Members' Conference scholarships (\$60 each) for 12 members to attend the state conference.
- Polly Spangler Maclin Scholarship of \$100 for a 4-H member to attend State Alpha Camp.
- Emma Noe Living Trust Fund (interest) to support State WVCEOS Annual Conference keynote speaker.
- WVCEOS members participated in the international project, *Stitches for Survival*, by collecting more than 1,000 pounds of embroidery thread and sewing supplies for distribution to low-income, home-based artisan businesses in South America.
- 277 CEOS members took on a new leadership role at the local, state, or national level. Outgoing State President, Ruth Ann Anderson, was elected the 2007 NVON President-elect.

Source of Funding: Federal, state, county, local

Scope of Impact: State-specific

Key Theme 13—Youth Resiliency and Reaching the Underserved

Brief Description

Children, Youth and Families at Risk (CYFAR)

CYFAR is Extension's national initiative of developing programming for children, youth, and families at risk for low educational achievement, substance abuse, domestic violence, and other life-impairing issues. West Virginia received a CYFAR grant to increase the number of low-income youths participating in the 4-H program through 4-H Afterschool sites.

Poverty Simulations

Based on the work of Ruby Payne, poverty simulations were held at various state locations. These simulations allow human service professionals, youth workers, and volunteers to experience the stress and complication of living with a chronic budget shortfall. Each has a role to play—that of an agency representative or a financially strained family member. Workshop participants decide how to pay for rent, utilities, food, and clothing, and to deal with various government agencies and their protocols.

Camping and At-risk Youth

Nearly every county in West Virginia has a tradition of summer residential camps. However, many barriers prevent low-income youths from attending camp. Comparing the percentage of low-income youths participating in camps with the percentage receiving free and reduced-price meals in county schools is one way to assess how well Extension is serving poor and disenfranchised youths and families.

Hispanic Programming

WVU Extension has increased its involvement in addressing issues and educational needs related to the expanding population of Hispanic migrants, workers, and residents in the Eastern counties of the state. A graduate course was designed and presented to increase educators' understanding of Hispanic cultures and to increase schools' capacity to teach Hispanic students and communicate with Hispanic parents more effectively. This course represents an important method of increasing educators' awareness of the multicultural challenges of the Hispanic community in West Virginia.

Regional Training for Staff and Volunteers: Working with and on Behalf of Underrepresented Audiences

Twenty-four percent of the West Virginia's youth live in poverty. Faculty and volunteers were trained in strategies for working with underserved youth audiences. The goal of this training is to facilitate the inclusion of underserved youth populations into WVU ES 4-H Youth Development programs.

Statewide AmeriCorps VISTA program

AmeriCorps VISTA members serving in West Virginia help bring individuals and communities out of poverty by fighting illiteracy, improving health services, creating businesses, and increasing housing opportunities. The goal of the WVU-ES VISTA program is to increase participation of low-income people in WVU-ES programs through placement of members in 10 counties to work closely with Extension agents and local volunteers.

Earned Income Tax Credit Education Program

In partnership with West Virginia Welfare Coalition and the North Central EITC Coalition, Extension's EITC Program is helping to increase the number of West Virginia families applying for the credit and receiving additional income. WVU-ES is doing this by participating in a campaign to increase awareness about and participation in free tax preparation among low-income families and individuals, promote EITC benefits and free tax preparation through media and collaborative promotion efforts, and assess the impacts and outcomes of the project. We are working to get the word out more effectively to eligible families so they may receive refunds they have earned.

Impacts and Accomplishments:

- Three pilot counties each have three sites involved in the CYFAR program. Three half-time program assistants are placed in counties to work cooperatively with Extension agents.
- Five poverty simulation workshops had 284 participants.
- 24,877 meals were provided to 1,856 youths at summer camps.
- In 2005-06, 16 counties increased percentage of youth residential campers qualifying for free and reduced-price meals.
- AmeriCorps VISTA members were placed in 10 West Virginia counties.
- AmeriCorps VISTA members coordinated the work of 582 volunteers who contributed 6,030 hours of service.
- Over \$50,000 was reimbursed to 33 counties to assist with the expenses involved in feeding hungry children.
- 16 counties increased the percentage of youth campers qualifying for free or reduced-price meals.
- 16 students completed the WVU 3-hour graduate course "The Hispanic Student in Your Classroom."
- 59 students completed the WVU 3-hour graduate course "Understanding Poverty and Entrepreneurship: Helping Our Students Succeed."
- 76 Extension faculty and staff were involved in the 14 regional volunteer leader training workshops.
- 1,126 teachers, administrators, and social service personnel were involved in 3- to 6-hour workshops on Understanding Economic Diversity and Its Impact on Learning. Participants reported significant increase in knowledge gain on pre- and post-assessments, with mean scores on most items increasing from 2.6 to 4.3.

- For the course on teaching Hispanic students, students reported on post-questionnaires some or significant progress in meeting goals and objectives in their strategic plan derived from knowledge gained in the class.
- Resource materials developed for this course are being shared with teachers and community leaders throughout the eastern counties of the state.
- WVU academic faculty and professionals are seeking new opportunities to partner with WVU Extension to reach underserved populations more effectively. For example, the WVU Health Sciences Center, Division of Social Work, and Department of Foreign Languages are working with Extension to provide Hispanic education and outreach.
- An outgrowth of this course is the creation of a special interest 4-H club in Berkeley County with attention to Hispanic heritage and cultures.
- \$9,000 subcontract to conduct research and promote EITC was received from North Central EITC Coalition.
- Administered a survey to 228 families that received EITC to determine knowledge of free tax preparation service, experience in applying for EITC, and use of refund.
- Survey Research Report completed and disseminated through W.Va. Welfare Coalition, North Central EITC Coalition, and Extension.

Source of Funds: Federal, state, county, local

Scope of Impact: State-specific