



Annual Report of Accomplishments and Results

Fiscal Year 2004: October 1, 2003–September 30, 2004

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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 (WVUES) submits the following report of its major program accomplishments for fiscal year (FY) 2004. 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 we received from the 2001 USDA-CSREES Review Team regarding the 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 our 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, WVUES 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 our 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. For example, West Virginia, like many states, is anticipating a budget shortfall of

\$120 million this FY2005, and the state is projected to have a deficit of up to \$175 million in fiscal year 2006. Prospects for increased federal and county funding are also bleak. The regional jails are taking much of the local dollars in some counties. We are approaching this challenge in several ways.

- Extending our capacities to deliver programs. Since 1996 Extension has:
 - increased direct client contact from 122,225 to 256,996 (plus 76,000 at Jackson's Mill Jubilee)
 - increased faculty-client ratio from 1 to 690 in 1996 to 1 to 1,427 in 2004
 - reduced regular full-time employees; increased seasonal employees
 - increased number of single-agent counties from 12 to 21
 - increased county funding from \$3.2 million to \$3.4 million
 - had stable, flat federal and state funding
 - had significant increase in sponsored programs (from \$996,437 active multi-year in 1997 to \$5,900,000 active multi-year in 2004)
- 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 Eberly School of Applied Social 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 administrators and central administrative support and moving these funds 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.
- Focusing Jackson's Mill on improving its programming in areas consistent with its traditional mission in order to increase the proportion of its budget users and outside sources support. Efforts continue to obtain both West Virginia State and/or Federal funds for repairs, renovations, and capital improvements to Jackson's Mill. Improving construction management at Jackson's Mill. Alert on-site management saved Jackson's Mill \$250,000 in costs on a major safety project at the Jackson's Lodge.
- 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 reassignments, merging assignments (e.g., multicounty), and closing vacancies. Every

vacancy is carefully scrutinized, and only positions that address critical needs are advertised.

In 2003, WVU Extension Service recognized the need to review staffing levels of its 55 county offices and to establish a process and criteria for staffing and funding those offices. 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, guidelines have been adopted. 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 items, such as travel and phone.

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 Extension's 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 young people 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 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 by seeking 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 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 information gathered was used are covered in the "Program Review Process" section.

Resources

WVU Extension's FY2004 operating budget was \$27.82 million*, an increase of \$1.45 million over FY2003. Federal, state, and county appropriations provide base funding for Extension infrastructure and program efforts. The operating budget breakdown shows 19 percent federal funds (\$5.23 million including 3b and 3c, Expanded Food Nutrition Education Program, and 3d)**; 31 percent state funds (\$8.60 million); 13 percent county funds (\$3.55 million); 21 percent grants and contracts (\$5.9 million); and 16 percent user fees and WVU Foundation (\$4.54 million). Of the total WVU Extension budget (which includes funding for numerous non-Cooperative Extension programs), 81 percent is from non-federal/USDA-CSREES funding.

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

**The actual FY2004 federal 3b, 3c appropriation to West Virginia was \$3.42 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% of salaries of second or third agents
- Additional agents are paid 100% 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

Extension is working on a comprehensive listing of functions and programs that will be accomplished in each West Virginia county. This list will further our ability to strategically define who and what we are programmatically.

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 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 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. WVU has continued its response to a complaint lodged with the USDA Office of Civil Rights alleging that the WVUES discriminated, misused, and misinterpreted Native

American Indian imagery and customs in its 4-H camping program. National 4-H Program Leader Cathann Kress again visited state and county camps in the summer of 2004. At that time, she observed positive changes in camping practices resulting from the complaint and subsequent staff training on appropriate practices. A full report on all progress to date on curriculum review and development for the camps was provided to USDA in May 2004. Work continues on the development of new curriculum for camping programs and for 4-H club programs in W.Va.

7. Nationally eminent faculty and administrators from three other universities are conducting an external program review of the Institute for Labor Studies and Research. This review will be completed in 2005. A similar review of Safety and Health Extension will be conducted in 2005.

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 13 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. WVSU currently supports one county agent, co-located in Roane County with WVU Extension faculty.

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, such as: 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 \$3.42 million in 3b, 3c funds was allocated to West Virginia.

Evaluation of the Success of Multistate and Joint Activities

For fiscal year 2004, WVUES documented \$173,436 multistate activities using Smith-Lever 3B and C funds and \$345,500 for integrated activities. The current funding level has exceeded the originally planned five-year expenditure target of \$298,000 (based on doubling the 1997 baseline amount of \$149,000).

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 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 WVUES to gain the greatest impact from its resources, resulting in ultimate benefit to the public it serves.

**Cooperative State Research, Education, and Extension Service
 Supplement to the Annual Report of Accomplishments and Results
 Multistate Extension Activities and Integrated Activities**

Multistate Extension Activities

Actual Expenditures

Title of Planned Program/Activity	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004
Livestock Marketing	\$ 13,420	\$ 14,170	\$ 15,100	\$15,241	\$15,300
Grassland Management	\$ 24,872	\$ 26,160	\$ 26,160	\$26,683	\$26,700
Horticulture	\$ 5,386	\$ 5,450	\$ 5,450	\$ 5,559	\$5,600
Sustainable Agriculture	\$ 7,381	\$ 7,630	\$ 7,630	\$ 7,859	\$8,000
Water Quality	\$ 6,710	\$ 7,630	\$ 7,630	\$ 7,859	\$7,900
Integrated Pest Management	\$ 9,394	\$ 9,810	\$ 9,810	\$ 9,810	\$10,000
Food Safety	\$ 18,993	\$ 19,620	\$ 21,000	\$21,000	\$21,500
Community, Economic, and Workforce Development	\$ 13,889	\$ 15,260	\$ 15,260	\$15,565	\$15,750
Diabetes Education	\$ 9,119	\$ 9,119	\$ 11,329	\$11,329	\$11,400
Be Smart! Eat Smart! – FSNEP	\$ 5,058	\$ 5,058	\$ 5,058	\$5,260	\$ 5,300
Child Care Providers Training	\$ 5,424	\$ 5,424	\$ 5,424	\$5,424	\$ 5,500
CYFAR	\$ 9,734	\$ 9,734	\$ 9,734	\$9,734	\$ 9,800
Volunteer Leadership Development	\$ 8,094	\$ 8,094	\$ 8,094	\$8,094	\$ 8,100
Forestry		\$ 7,500	\$ 7,500	\$ 7,575	\$ 7,600
Extension					\$14,986
TOTALS	\$137,474	\$150,659	\$155,179	\$156,992	\$173,436

**Cooperative State Research, Education, and Extension Service
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Integrated Activities (Smith-Lever Act Funds)

Actual Expenditures	11/30/04 Revised	11/30/04 Revised			
Title of Planned Program/Activity	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004
Livestock Marketing	\$ 62,000	\$ 62,000	\$ 62,100	\$62,100	\$63,000
Grassland Management	\$ 52,000	\$ 52,000	\$ 52,500	\$52,500	\$53,000
Horticulture	\$ 31,000	\$ 31,000	\$ 31,600	\$31,800	\$32,000
Forestry/Wood Products	\$ 49,600	\$ 49,600	\$ 49,750	\$50,000	\$50,500
Sustainable Agriculture	\$ 12,400	\$ 12,000	\$ 12,000	\$11,800	\$12,000
Water Quality	\$ 71,076	\$ 70,975	\$ 71,050	\$71,500	\$72,000
Integrated Pest Management	\$ 31,000	\$ 31,000	\$ 31,500	\$31,800	\$32,000
CYFAR	\$ 0	\$ 0	\$ 2,300	\$ 2,300	\$ 0
TOTALS	\$309,076	\$308,575	\$312,800	\$313,800	\$314,500

Part II: FY 2004 Annual Report of Accomplishments and Results Program Summary
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**Goal 1: To achieve an agricultural production system that is highly competitive
in the global economy**

Executive Summary

Program Overview:

West Virginia is 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, in order to survive, must compete with national and global markets. West Virginia has the highest proportion of family farms in the nation. The annual gross receipts from agriculture now exceed \$400 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 Extension educational programs related to beef and feeder cattle marketing, sheep production and marketing, aquaculture, grassland management, home and commercial horticulture, farm and risk management, forestry production, management and marketing, and agricultural education were developed and delivered throughout the state. 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 include workshops, skill-a-thons, farm visits, field days, judging programs, exhibits, youth camps, and other youth programming. These programs have been well received and have resulted in knowledge gains, production increases, profit gains, and good environmental stewardship.

Plan of Work Performance Goals

- 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. Teach best management practices through certification/educational programs.
- Improve grassland management techniques/procedures in order to increase West Virginia's farmers' profits.
- Increase the adoption of rotational grazing practices as a way to increase forage quality and quantity and to protect water quality.

- Increase management practices that increase legumes in pastures to improve forage quality and reduce nitrogen fertilizer costs.
- Optimize winter feed by evaluating the economics and quality of hay and haylage production and extending the grazing season.
- Increase horticultural sustainability and marketing in West Virginia.
- Educate forest owners and forest products industry about woodlot management, forest policy, urban forestry, and other forest-related environmental issues.
- 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.
- Increase life skills development through involvement in 4-H agricultural and natural resources programming.
- Enhance the use of natural resources in the production of salmonids for food.
- Increase the use of natural resources for recreational activities.
- Increase awareness and use of proper biosecurity measures on livestock production areas.
- Enhance existing markets for agricultural products to increase profitability of West Virginia agricultural enterprises.
- Increase awareness of management practices that help minimize risk and maximize profit to 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 and reduced production costs as well as the 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

- 2,253 educational programs delivered to 98,673 participants
- Educational programs provided in grassland management, forest production and management, value-added marketing, beef production, and other livestock production
- Provided a marketing alternative for small beef production systems
- Participants educated to develop least-cost and high-quality forage conditions
- Responded to 600 requests for aquaculture information
- Provided aquaculture information at 185 sites
- Distributed aquaculture DVDs to 200 state secondary schools

Outcomes:

- 355 producers certified or recertified in BQA
- Producers utilized performance-tested sires for the BQA program
- 230 producers participated in calf pools
- Three statewide beef quality assurance sales conducted for 18 cattle pools

- 52 sheep and goat producers marketed cooperatively
- Wool marketed by yield and grade
- Shepherds implemented predation management programs
- Three new forest-based enterprises formed in 2004
- 28 woodlot participants adopted new forest practices
- Established recreational aquaculture facilities
- Helped major food fish producer obtain first NPDES permit
- 15,000 brook trout and 8,000 rainbow trout vaccinated against furunculosis
- 6,300 paddlefish fingerlings (a threatened species) stocked in West Virginia rivers in 2004

Impacts:

- Improved weaning weight of calves marketed through pools by 51 pounds. (\$90.34) for steers and 29 pounds (\$9.97) for heifers or a total of \$615,978
- Reduced feed costs and extended the feeding production season in 11 counties by an average of three weeks
- Reduced cost of animal production in six counties by \$23.83/head
- Increased profitability of the calf pool participants by more than \$482,630 total or an average of \$2,098 per farm over traditional marketing methods
- Increased the health and value of the animals produced by participants
- Cooperative marketing of sheep and goats resulted in a \$30,000 net return
- Increased cattle performance on average of 33 pounds/head and reduced weaning costs by \$112.20/head
- 230 producers marketed a total of 7,875 head through assurance sales.
- Increased weight of steers by 51 pounds/head and 29 pounds/head in heifers resulting in more than \$90 additional revenue for steers and nearly \$60 for heifers to producers.
- Selling wool by yield and grade increased the net return by more than \$20,000.
- Increased income was generated through recreational aquaculture facilities.
- Private production of food fish from mine water resources exceeded private production of food fish from other water sources.
- An estimated 400,000 pounds of food fish were produced in facilities utilizing groundwater from coal mines.
- Approximately 300,000 pounds of food fish were produced at private facilities utilizing other water sources.
- About 5,000 pounds of rainbow trout were grown, harvested, and distributed in 2004.
- Approximately 8,000 pounds of rainbow trout were produced in a demonstration system utilizing acid mine drainage.

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

Total expenditures by source of funding and FTE for goal

Federal Smith-Lever	\$ 820,000	10.25 FTE
State matching	\$ 730,000	16.97 FTE
County matching	\$ 90,000	3.31 FTE

Key Theme 1—Agricultural Profitability

Brief Description: Profitability programs are the cornerstone of Extension agricultural programs. Extension specialists and county agents developed and delivered multiple agricultural profitability programs throughout the state. These programs included 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. These programs were conducted with significant face-to-face contact in regional and local meetings to share and demonstrate methods and processes to make the farmer more competitive and increase his/her revenue while being a good steward of the environment.

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

Grassland is the basis for agriculture in West Virginia. The primary agricultural industries—ruminant livestock—require grassland for their sustainability. Extension educates producers to provide least-cost and 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. Coordinated educational meetings were conducted across the state during the winter. Noted speakers were brought in for these dinner meetings. Other program activities included extended grazing season demonstrations; reduced fertilizer demonstrations/research; poultry litter application projects; and a host of field demonstrations, workshops, and programs.

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

The *forestry and wood products* educational program trained woodlot owners, loggers, and the general public. Information was also distributed to interested parties via newsletters and fact sheets. Collaborators included the Appalachian Hardwood Center, West Virginia Forestry Association, USDA Forest Service, and various other state and local organizations and associations.

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 and associations.

Farm and Risk Management efforts included workshops, meetings, and seminars to help producers identify risk within agricultural enterprises. Part of the management involves the evaluation of operations and adjusting risk management opportunities outside the operations. Many of these programs targeted women who traditionally serve as chief financial officers for most agricultural enterprises. Traditional record keeping, income tax management, diversification, and estate planning were emphasized during the past year.

Impacts/Accomplishments:

- More than 60,000 people attended some 1,000 state, multistate, regional and local Extension agricultural education programs related to agricultural profitability.
- Increased the grazing season an average of three weeks.
- Improved forage yield of 1.9 tons/acre.
- Increase of 996 pounds/acre of dry matter (DM) available during the summer months.
- Increased cattle performance an average of 33 pounds /head.
- Reduced weaning costs of \$12.20/head.
- 355 producers were certified or recertified in beef quality assurance (BQA) during the year.
- Three statewide BQA sales were conducted for 18 cattle pools.
- 230 producers marketed a total of 7,875 head through these sales.
- Average return per farm over traditional marketing methods was \$2,098.35.
- Producers utilized performance-tested sires for the BQA program.
- Increase of 51 pounds/head in steers and 29 pounds/head in heifers, which resulted in more than \$90 in additional revenue for steers and nearly \$60 for heifers.
- 52 sheep and goat producers participated in the first sheep and goat marketing pool, increasing gross returns by more than \$30,000.
- Yield and grade marketing of wool led to an increase of \$20,000 to producers.
- Utilizing risk management techniques, producers reduced tax liability by more than \$240,000.

- Extension's support facilitated the generation of \$1.3 million in 39 farmers' markets and 153 direct market outlets.
- Master Gardener volunteers devoted 26,109 hours of service to the University and to their communities as a result of this program.
- 28 woodlot participants adopted new forest practices; three new forest enterprises were established.

Source of funding: 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.

Key Theme 2—Aquaculture

Brief Description: Aquaculture production is a new concept to most residents of West Virginia, but it is considered desirable and promising, 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) the use of farm raised fish for recreation. Extension is integrated into a multidisciplinary research project called the Aquaculture Food and Market Development Project.

Each January, the statewide Aquaculture Forum is held in collaboration with the State 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/Accomplishments:

- Extension agents and specialists responded to more than 600 requests for information about aquaculture and related topics.
- Approximately 185 site visits were conducted during 2004.
- Kentucky State University, The Ohio State University, and West Virginia University produced DVDs in conjunction with the Tri State Project (Learning and Teaching Aquaculture). DVDs were distributed to 200 secondary schools in West Virginia.
- Private production of food fish from mine water resources exceeded private production of food fish from other water sources. An estimated 400,000 pounds of food fish were produced in facilities utilizing groundwater from coal mines and about 300,000 pounds of food fish were produced at private facilities utilizing other water sources.
- Hybrid bluegill production was initiated at three farms.
- WVU Extension worked with a major food fish producer to obtain its first National Pollutant Discharge Elimination System (NPDES) permit.
- For the first time in West Virginia, aquaculture was written into the reclamation plan for a coal mining operation. This was designed and installed at a savings to

- the coal operation. Approximately 5,000 pounds of rainbow trout were grown, harvested, and distributed in 2004.
- Approximately 8,000 pounds of rainbow trout were produced in a demonstration system utilizing acid mine drainage.
 - 15,000 brook trout and 8,000 rainbow trout were vaccinated against furunculosis.
 - The Extension aquaculture specialist has demonstrated spawning techniques to the W.Va. Division of Natural Resources (DNR) for several years. As a direct result, more than 6,300 paddlefish fingerlings, a threatened species, were stocked in state rivers in 2004.
 - An Acid Mine Drainage (AMD) treatment plant hosted two fishing days. One was for youths and their parents and the other for seniors and their caregivers. These events are leading to the acquisition of the site for recreational purposes.

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

Scope of Impact: Statewide and regional. The multidisciplinary project draws from faculty in Food Science, Resource Economics, Animal Science, Civil and Environmental Engineering, Recreation and Parks, and Marketing. Coordinating extension efforts with research efforts and economic development strategies is building a solid program for the budding aquaculture industry. WVU has worked with Kentucky State University and The Ohio State University to develop, produce, and distribute an aquaculture curriculum to secondary schools.

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, especially those in West Virginia's Eastern Panhandle. Much of this urban sprawl has reduced farmland. Community and land-use decisions are being made without adequate knowledge of the importance of agriculture. 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, Extension continues to deliver educational programs on the importance and relevance of agriculture to our world and communities. These educational programs take place in schools, workshops, fairs and exhibits, and youth camps. The goal is to enhance the agricultural knowledge of West Virginia's youths and adults and provide them with the ability to make better informed land-use decisions. Collaborators included W.Va. Department of Agriculture, boards of education, and various other local boards and associations that support youth and agriculture.

Impacts/Accomplishment:

- More than 24,300 youths and 12,655 adults attended Extension's agricultural education programs in 2004.
- Individuals marketed 2,907 market animals; more than \$1,644,700 was generated by 4-H and Future Farmers of America (FFA) livestock sales.
- An additional \$111,048 was returned to the community groups and organizations from youth project livestock sales in 2004.
- Baseline data indicated that 569,969 total pounds of meat products entered the food chain from youth market animal projects.

Source of funding: 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:

West Virginia has a large rural population with many families who preserve homegrown foods for family consumption. In addition, many organizations and groups provide meals for the hungry in the state. Specifically, the Mountaineer Food Bank's (MFB) mission is to help alleviate hunger in W.Va. It has developed an effective network for food acquisition and usage throughout the state. Annually, it distributes more than 5.5 million pounds of food to hungry families in 48 of state's 55 counties. The member agencies are food pantries, shelters, child development centers, seniors, and soup kitchens. Food training for these partners ensures the best food quality and safe handling. Washing hands is a key, 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:

West Virginia University Extension Service served as co-principal investigator on the *Germ City—Clean Hands, Healthy People Interactive Hand Washing Education* project that was 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. Educational programs were delivered to youth and adult audiences in the pilot states of Alabama, Hawaii, Idaho, Washington, and West Virginia. These educational programs were conducted in kindergarten, elementary and high school classrooms; senior centers; after-school and Head Start programs; health care facilities; tribal health centers; food-service operations; and fairs and festivals.
- Multiple in-service training sessions educated faculty and volunteers.
- Web site (www.germcity.wsu.edu) development and management continued during 2004.
- Fact sheets, newsletters, and demonstrations were used to deliver this program as well.
- A pre- and post-hand evaluation form with a 4-point Likert scale to rate the cleanliness of the front and back of the right hand was developed and used with program participants.
- Children answered a questionnaire about hand-washing and teachers completed a questionnaire about benefits of the Germ City Program.
- 26 West Virginia counties participated in Germ City in 2004.

- The program reached almost 5,000 (4,932) students in schools.
- 22,157 children and adults participated in Germ City in West Virginia.
- A 4-H fact sheet was developed

Outcomes:

- Extension programs in Tennessee, Vermont, Arizona, and California, as well as individual university institutions, such as Western Illinois University, West Virginia State University, and the Lane County (OR) Fair have initiated new programs linked to food safety and health.
- As a result of this program, 52 Germ City units in 11 states deliver the program.
- 39 W.Va. counties have decided to deliver the Germ City Program.

Impacts:

- Four to six weeks after the initial presentation/assessment, with no new instruction, there was improved hand-washing effectiveness confirmed by independent observations of fingernails, knuckles, back of wrist, between fingers, fingertips, palm, and front of the wrist after applying a UV-light-sensitive lotion and performing a normal hand-wash.

State’s Assessment of Accomplishments

The Germ City project is a success based on documented outcomes and impacts. Volunteers have been important for the program’s development, delivery, and evaluation. Parents, teachers, student educators, school nurses, infection control specialists, and public health educators have been involved in marketing the Germ City Program and conducting the programs. It will take continuous collaboration for the program to maintain sustainability.

Total expenditure by source of funding and FTE for goal

Federal Smith-Lever	\$60,000	0.75 FTE
State matching	\$50,000	1.25 FTE
County matching	\$10,000	0.25 FTE

Key Theme 1—Food Handling

Brief Description: Extension specialists and county agents worked as a team in partnership with local organizations and volunteers to deliver a broad range of educational programs focused on food handling and food safety. The 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 new member orientation was offered six times during the year. Eighty-four volunteers

from 21 counties in the MFB network participated. They represented 21 church affiliated food pantries and 20 agencies and organizations that feed individuals and families.

Germ City is an interactive hand-washing 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 multi-year program (began in 2003 with programming in 15 West Virginia counties). The program is designed to enhance awareness of the importance of hand-washing using science-based education. Specific goals include: modifying attitudes, enhancing personal motivation, and facilitating positive behavioral change associated with hand-washing. As a result of the 2004 program effort, at least one Extension faculty/staff person was trained in the *Germ City* curriculum in 39 West Virginia counties, and 32 volunteers were trained statewide to deliver the program. In 26 West Virginia counties, the program was presented 51 times in schools—kindergarten through middle school—reaching 4,932 students. In addition, it was delivered in community settings (fairs, festivals, etc.) 35 times, reaching 5,325 children and adults; it was delivered 18 times to 4-H camps, senior centers, food banks, Farm Safety Day Camp, W.Va. State Fair, child development centers, Head Start classrooms, and the W.Va. Early Childhood Conference, reaching an estimated 22,157 children and adults. In addition, the program was featured on a public television program viewed by an estimated 11,900 individuals.

Food Preservation/Food Safety educational program targets families who preserve homegrown food in an effort to meet the nutritional needs of their families. Extension faculty and staff provide research-based food preservation information. In 2004, 30 Extension educators with family and consumer science responsibilities and nutrition outreach instructors were trained to deliver this program.

Impacts/Accomplishments: *Food Preservation/Food Safety* program participants' knowledge base was increased and their newly acquired skills benefited the participants personally and when providing feeding programs. In addition, there was significant improvement in thoroughly washing fingernails, palm, and front wrist according to pre- and post-tests. Careful cleaning of these areas was a concern from the 2003 program data. Emphasizing these areas in 2004 resulted in positive behavioral change. Significantly more students self-reported they had washed hands before eating dinner the night before and after they last used the bathroom. The confidence level was assessed for Extension staff regarding their ability to provide adequate information for various preservation questions (canning, freezing, drying, pickling and jams/jellies).

Source of Federal 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

Chronic diseases, such as cancer, diabetes, and heart disease, are major health issues in West Virginia that have enormous negative economic impacts. The causes of these

chronic diseases are linked to social styles, culture, and sedentary lifestyles of both youths and adults. Extension has developed a comprehensive health and nutrition strategy that includes educational programs designed to educate people about the value of healthy diets and the importance of modifying their dietary habits and physical activity. The programs use experiential instruction, demonstrations, diagnostic assessments, and physical activity. The priority health and nutrition programs are *CARDIAC Challenge*, *Active for Life*, *Diabetes Education*, and the *Family Nutrition Program*.

Plan of Work Performance Goals:

WVU Extension Service will promote the physical health and well-being of limited-resource families and individuals through changes in behaviors. The focus of these behaviors is dietary quality, food safety, food consumption, and food security.

Multistate/Integrated Activities: State specific

Outputs

- Audiences were recruited to participate in a six-week to nine-month series of nutrition education lessons.
- Educational sessions included demonstrations and experiential learning.
- 1,894 adults and 3,015 youths participated in the Family Nutrition Program (FNP).
- The CARDIAC Challenge was offered through 4-H camp projects, such as Nutrition Trivia at Mealtime, Walk & Talk, Dance Movements, and Station Rotations.
- Developed a curriculum that included four two-hour lessons with classroom information, physical activities, and food preparation.
- Provided regional training for 4-H teen leaders.
- Trained Active for Life (AFL) volunteers in these topics: overview of aging; benefits of exercise; fitness goals and assessments; health and safety; organizing and maintaining a site; and AFL exercises.
- 109 program leaders were trained, and 502 adults participated in AFL programs.
- A 2.5-day diabetes education symposium was organized and convened.
- A total of 37 Dining with Diabetes Cooking Schools were held in 30 of 55 counties in 2004.
- Three counties developed newsletters and fact sheets.

Outcomes

- Participants report knowledge gain and behavioral change as a result of program participation.
- Healthy eating behaviors and nutrition knowledge were improved for 1,531 of 3,015 FNP participants as measured by pre- and post-tests.
- Healthy eating behaviors and nutrition knowledge were improved for 1,531 of 3,015 FNP participants as measured by pre- and post-tests.

Impacts

- FNP participants report healthy eating and active lifestyle changes as noted in the following: increase in daily intake of fruits and vegetables (2.5 to 3.8 servings); increase in daily intake of calcium (.48 to .62 RDA); decrease in daily intake of calories (33.9 to 33.1); and 41 percent reported a decrease in sodium.
- Five counties reported the development of new collaborations as a result of the AFL program.

State's Assessment of Accomplishments

The nutrition and health programs are very popular throughout the state. Specifically, they are effective in educating citizens about the importance of healthy diets, modifying behavior in ways that lead to healthy lifestyles, and promoting effective physical activity for youths and adults as ways to promote healthy living (specifically as noted with the FNP impact data). There is need for continuous health and nutrition programming. Requests for diabetes cooking schools and AFL classes are examples of this need.

Total expenditures by source of funding and FTE for goal

Federal Smith-Lever	\$190,000	2.40 FTE
State matching	\$170,000	3.96 FTE
County matching	\$ 20,000	0.77 FTE

Key Theme 1—Human Nutrition and Health

Brief Description: Extension delivered human nutrition and health education in five major programs during 2004: The CARDIAC Challenge; Active for Life; CEOS Involvement in Health and Nutrition Programs; Bridging the Gap with Education: Diabetes Symposium and Workshop–2004; and Dining with Diabetes.

CARDIAC Challenge is a family-based nutrition and physical activities program designed to reduce chronic diseases in West Virginia. It provided at-risk children and their parents' with nutrition education, physical activity, and food preparation classes. In addition, the CARDIAC Challenge targeted healthy lifestyle behaviors among youths through Extension's 4-H camps. Its primary goal is to improve the knowledge of healthy behaviors pertaining to nutrition and physical activity of youth and families.

Active for Life was originally developed as a WVU Extension Service Preventicare National Demonstration project. It is community-based and has low-intensity exercise activities for older adults. Participants are encouraged to attend 35-minute class sessions three to five times each week. Group 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 use of muscles and joints to prevent loss of strength and flexibility; have social contact with peers; have an opportunity to keep up-to-date with health issues; and gain status and recognition from family and peers.

The *CEOS Involvement in Health and Nutrition Programs* initiative is an extension of the Memorandum of Agreement between the West Virginia Community Education Outreach

Service organization and the WVU Extension Service. The CEOS group, established in 1914, is statewide, and has a mission to strengthen individuals and families through continuing education, leadership development and community service. WVU Extension works closely with this group by developing educational programs in the areas of personal development, strengthening families, and nutrition and health.

Bridging the Gap with Education: Diabetes Symposium and Workshop –2004, an annual 2.5-day conference, disseminated useful research- and experience-based information to facilitate critical thinking and skill development in the areas of diabetes care and education. The conference goal was to provide the most up-to-date diabetes education and research information to health professionals and Extension educators in West Virginia and nationally.

Dining with Diabetes focuses on increasing the healthy food choices for the diabetic's diet. A series of six Diabetes Cooking Schools (two-hour sessions) are conducted weekly for people with diabetes, 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 shared 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 that use 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 2004, 37 Dining with Diabetes Schools were held in 30 of the state's 55 counties.

Impacts/Accomplishments:

- Participants reported increased knowledge and physical activity. In addition, 52 teens showed an increase in knowledge and leadership skills related to the implementation of CARDIAC Challenge.
- 11 counties reported development or continuation of *AFL* programs in 2004; 109 leaders were trained. Of the 502 adult participants, 184 reported changes in their knowledge, behavior, skills, and attitudes regarding nutrition and physical activities. Three counties developed newsletters and fact sheets, and five counties developed new collaborations as a result of the *AFL* program.
- CEOS members participated in Breast and Cervical Awareness programs, which involved 1,251 adult volunteers, 2,235 adult participants and 212 youth participants. Some 1,000 CEOS member participants reported changes in their knowledge, behavior, skills, and attitudes as a result of the training. More than 115 CEOS members volunteered in Dining with Diabetes Cooking Schools, and 417 CEOS members were participants.
- More than 250 people attended the *Diabetes Symposium*. They represented Extension Service, social workers, pharmacists, physician assistants, nurses, and diabetes educators.

- *The Dining with Diabetes Program* data clearly indicate that participants achieved significant improvements in the areas of knowledge, behavioral change, and clinical results. Consistently more individuals/groups in counties where the program has a long history are requesting more programs. In addition, individuals and groups are asking for the program to be offered in counties where it has not been held.

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

Scope of Impact: State specific and national (for Diabetes Symposium)

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 in 32 of state’s 55 counties. The NOIs recruit program participants from lists county DHHR offices provide. In addition, public schools may refer parents who participate in Head Start programs or free and reduced-price lunch programs. The NOIs make personal contacts with participants in mostly rural areas, resulting in greater levels of trust. 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; 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/school breakfast. Moreover, participants learn safe food handling techniques and food resource management skills.

Impacts/Accomplishments:

- During 2004, 1,894 adults (families) and 3,015 youths participated in the Family Nutrition Program.
- Increased daily intake of fruits and vegetables from 2.5 servings to 3.8 servings
- Increased daily intake of calcium from .48 RDA to .62 RDA
- Decreased daily intake of calories (fat) from 33.9% to 33.1%
- 41% of participants decreased daily intake of sodium
- 185 families enrolled in one or more assistance programs as a result of FNP
- 57% of participants improved in following safe thawing procedures
- 28% of participants improved techniques for safely storing foods
- As a result of adults attending an FNP session:
 - ✓ 48% showed improvement when planning meals in advance
 - ✓ 39% improved ability to compare prices when buying food
 - ✓ 40% improved ability to make food last throughout the month
 - ✓ 46% improved by using a grocery list when shopping for food
- As a result of youths attending an FNP session:
 - ✓ Average pre-test score was 60.8%
 - ✓ Average post-test score was 81.1%
 - ✓ 1,531 (of 3,015) improved from pre- to post-test

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

It is important for Extension to continue to maintain the quality of our environment in order to ensure our future. 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 into our agricultural and natural ecosystems. The network provides for quick identifications and protocols for immediate reporting to appropriate responders and decision-makers. This networking of diagnostic experts will reach out to Extension personnel and agricultural producers. In order to manage these pests, agriculture utilizes chemical pesticides that are under continual regulatory evaluation. Information is needed to promote informed regulatory decisions about registered pesticides used on commodities grown in the Mid-Atlantic region and to encourage use of alternative pesticide practices, such as integrated pest management (IPM). WVU Extension provides educational programs that meet the state certification requirement of informing and instructing private and commercial applicators of changes of 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 plans to implement 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 has developed educational programs addressing 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 the knowledge and use of best management practices through nutrient management recommendations and educational meetings to landowners in the state.
- Increase awareness of water quality impacts to watershed 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 in West Virginia crop production.

- Reduce crop production costs as a result of adopting IPM.
- Improve upon diagnostic capabilities providing 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.
- 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 developing and conducting regional 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:

- The Fundamentals of Nutrient Management class curriculum was reviewed and updated: two training workshops were held.
- Field days and meetings covered proper nutrient management were held.
- 110 certified nutrient management planners participated in continuing educational classes.
- 42 agency personnel were trained in fundamentals of nutrient management.
- One regional forum on ammonia was held.
- 43 producers and agency personnel attended a regional forum about ammonia
- 31 field days and meetings on water quality were attended by 543 individuals.
- 11 watershed groups participated in educational training
- 39 sustainable agriculture tours and workshops were held statewide.
- Six pesticide safety educational training programs were delivered.
- Educational training sessions were held in 44 counties to recertify private pesticide applicators.
- Approximately 640 individuals participated in noncertification education.
- Pesticide usage educational information has been posted on a Web site.
- Pesticide training videotapes presentations were produced.
- Private and commercial applicator certification manuals were updated.
- 25 study guides for private application certification were updated.
- Pesticide use information on field corn was developed.
- An advisory committee for pest management and alternatives was formed.
- Crop profile for field corn was completed.
- 11 crop profiles on pesticide application were completed.
- 12 issues of a pesticide usage newsletter were distributed.
- 216 Master Gardeners in 11 counties were trained on insect and disease identification and management.
- 40 educational programs informed producers about IPM.
- 1,876 individuals received IPM training.
- Two tree fruit schools were held.

- The Pest Management Recommendations for Field Crops and the Spray Bulletin Guide for Tree Fruits were developed.
- The Mid-Atlantic strategic plan for pest management of apples was summarized and distributed.
- The pest management Web site has been completed.
- Five meetings were held about the proposed concentrated animal feeding operation rules.
- Prepared a proposal to obtain funds for improving the plant diagnostic facilities.
- 32 Extension and state agency personnel participated in the pilot training for diagnostic networking.

Outcomes:

- Information about crop profiles and pest management strategic plans was compiled and distributed to the Environmental Protection Agency (EPA) and USDA.
- Extension agents used the pesticide-gathering information to educate clientele.
- 2,073 registered technicians were trained.
- 1,984 private applicators were certified.
- 702 private applicators were recertified.
- Of the recertified private applicators, 68% indicated that they were going to make changes in their pesticide-use practices.
- 2,295 commercial applicators were certified.
- Extension provided educational assistance resulting in the recertification of 703 commercial pesticide applicators.
- Training session participants demonstrated increased knowledge of pesticide applications.
- Master Gardeners trained in identifying and managing insects and diseases volunteered to educate clientele.
- 46 producers designed research proposals to address challenges on their operations; five were awarded grants totaling \$25,000.
- 18 counties reported a 12.6% increase in adoption of IPM practices.
- More than \$112,000 was reportedly saved in the 18 counties adopting IPM. These counties have reported an average reduction in pesticide usage of 7.0% along with an increase in IPM adoption of 12.6%.
- 322 clients followed IPM recommendations Extension provided.
- The pest management Web site facilitates communication with stakeholders.
- Funds were obtained to improve the plant diagnostic facilities, strengthen outreach programming, and develop a network to enhance national security.

Impacts:

- More than 1,000 acres of agricultural lands are under improved management systems as a result of nutrient management plans.
- 39 tons of metal were recycled.
- 59 tons of trash went to the landfill.

- 85 farmers adopted a more sustainable approach, resulting in at least one tillage trip across fields.
- Pesticide use was reduced by 7.9%.
- The EPA and USDA made more informed decisions about the maintaining important pesticides for managing crops based upon information sent to them by West Virginia and other states. These decisions affect the existence of pesticides used as management tools and alter pest management strategies resulting in reduced risk of pesticides and less environmental contamination.
- Plant problems are identified more quickly.
- Problems are 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	0.88 FTE
State matching	\$ 60,000	1.46 FTE
County matching	\$ 10,000	0.28 FTE

Key Theme 1—Plant Diagnostics

Brief Description: The Extension specialist and support staff have used funding to gather information needed to improve diagnostic capabilities and provide information in a timely manner to appropriate responders and decision-makers. This has been accomplished by attending regional diagnostic networking meetings. Diagnostic equipment is being purchased.

Impacts: West Virginia University is participating in a 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 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 linkages

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

Brief Description: The Extension specialist and support staff have collected information from state and regional agricultural producers and Extension specialists to contribute to pesticide decision-making. This has been accomplished through establishing an advisory committee, developing pesticide usage information on state crops, communicating with allied state and regional programs, and maintaining linkages with federal partners and state clientele.

Impacts: Crop profile on field corn completed, with 11 crop profiles containing pesticide use information. The Mid-Atlantic strategic plan for pest management of apples has been summarized and distributed. This information is needed for pesticide decision-making. The pest management Web site facilitates communication with stakeholders.

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

Scope of Impact: State Specific, with regional and national linkages

Key Theme 3—Pesticide Safety Education Program

The Extension specialist and support staff have developed and delivered statewide training programs that incorporate recent and appropriate information. In these programs, private and commercial pesticide applicators learned safe handling and proper application of chemical pesticides. These programs offer the opportunity to be licensed and certified to apply restricted-use pesticides as required by the West Virginia Department of Agriculture. In addition, noncertification education programs relating to identifying and managing insects and diseases were carried out in the counties.

Impacts: More than 1,400 commercial and private pesticide applicators received updated training for recertification. Of the recertified private applicators, 68% indicated that they were going to make changes in their pesticide use practices. Approximately 640 individuals participated in non-certification education.

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

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

Key Theme 4—Nutrient Management

Brief Description: WVU Extension Service develops and delivers educational training on nutrient management and its importance to environmental stewardship. These programs target certified nutrient management planners. Updated training is also required by certified individuals. Because nutrient management criteria change frequently, training curricula must be reviewed and updated. Landowners need training in nutrient management so that water quality standards are maintained.

Impacts: West Virginia now requires nutrient management planners to complete 12 hours of continuing educational credits every two years to maintain certification. Eighty West Virginia nutrient management planners were certified. More than 100 certified nutrient management planners participated in continuing education classes. More than 200 producers participated in nutrient management field days and meetings which resulted in over 1000 acres implementing improved nutrient management.

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: The Extension specialist and county agents are developing and implementing strategies to improve the state's water quality. Ongoing educational

programming addresses phosphorus and nitrogen management, regional nutrient budgets, concentrated animal feeding operations regulations, and environmental policy as it affects nutrient management and water quality. Extension personnel works with watershed associations to increase awareness of local water quality issues.

Impacts: Through local and regional efforts, a regional nutrient budget for phosphorus and a regional phosphorus site index system were developed. Thirty-one field days reached 543 participants. One regional workshop was developed on ammonia and its effects on water quality. Thirty-nine tons of metal were recycled, and 59 tons of trash went to the landfill.

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 due to weeds and other pests may exceed 50% across all crops in West Virginia. Losses just from uncontrolled weeds in field crops may exceed 75%. Conventional pesticides are used for managing these pests. Although pesticide use is inevitable, Extension promotes using a combination of other strategies in an integrated approach to pest control. IPM, GMOs, disease-tolerant cultivars, rotational grazing, and mechanical and biological weed control are emphasized.

Impacts: An overall savings of over \$112,000 was reported by the 18 participating counties through IPM adoption. These counties have reported an average reduction in pesticide usage of 7.0% along with an increase in IPM adoption of 12.6%. On an average, 322 clients followed IPM based recommendations provided through Extension Service.

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 derives outside income to sustain their operations. This, combined with the increased pressure to practice more environmentally sound management techniques, focuses the farming operation on more sustainable management practices. Adopting a more sustainable approach to managing resources and relating and marketing to their community will ensure profitability and help keep families on the farm. Methods of increasing profitability and sustainability are actively promoted through various outreach activities in most counties of the state.

Impacts: Five farmers received funds to study alternative practices in their farming operations. An additional 156 adopted more sustainable practices, including value-adding, direct marketing, agri-tourism, and diversification. These practices increase net returns for all operations. More environmentally friendly tillage practices adopted by 85 farm operations enhanced the sustainability of farming enterprises.

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 WVU Extension Service offers. Thirteen wide-ranging key themes report against in 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 these programs is great. WVU Extension continues to find new collaborators so that together we might accomplish more for the benefit of those 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 Extension 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 the fact 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 has a strong and vibrant 4-H program ranging from Cloverbuds to collegiate clubs. Fifty thousand members belong to traditional clubs. Collegiate 4-H clubs are found in seven state colleges and universities. Nationally, West Virginia has the Champion Forest and Home Site judging teams. The collegiate 4-H members hosted their national conference recently. In addition, West Virginia 4-H has taken part in a national pilot study of ATV safety, and has led the way in CARDIAC health education.

West Virginia 4-H strengthens the capacity of WVU Extension Service to offer four quality educational models built on researched youth development principles. The holistic approach to youth development is bolstered by 4-H projects and such character-building programs as Character Counts and Charting. Youths who grow through 4-H will carry good habits, ideas, and lifestyles into their adult years and will give back every ounce of effort been poured into them. With these skills, our youths are better able to cope with life's challenges. Resiliency can be learned, and it is up to Extension to do the teaching.

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 and cost-effective training to firefighters and other emergency and safety personnel.
- Reduce workplace safety and health hazards.
- 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.
- Instill in children—especially those from at-risk populations—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:**

- Community Development: 29 classes, 613 participants.
- Fire Safety: 1,193 classes, 15,500 participants.
- Worker Preparation: 68 classes, 2,270 participants.
- Workplace Safety: 223 classes, 4,040 participants.
- Storytelling: 2,108 participants.
- Heritage Activities: 32,000 participants.
- Fairs and Festivals at Jackson’s Mill: 76,000 attendees.
- Strengthening Families: 1,735 adult program participants; 1,378 youth program participants; 44 program volunteers.
- Two counties secured new resources to develop child-care facilities.
- “Apprenticeship for Child Development Security” course generated fees to support teaching certification classes for child-care providers.
- A state grant was secured to support local Relatives as Parents Program (RAPP) efforts.
- A legal handbook and other training materials were developed and disseminated as part of RAPP.

- Nearly 50,000 youths were involved in 4-H.
- Energy Express: 87 communities in 44 West Virginia counties.
- Energy Express: served 3,334 children entering first grade through sixth grade.
 - 70% of those children were eligible for free and reduced-price school meals
 - 20% required special services through Individual Educational Plans during the school year.
 - 10% were minority children.
 - 265 youths and 483 adults in six counties participated in Reading Partners.
- Family Storytellers: 153 youths and 46 adults in seven counties participated.
- Entrepreneurial training involved 4,390 youths in 12 counties.
- 25 youths from seven junior high or middle schools created and marketed their own businesses; 42 adults attended Business After Hours and purchased the goods and services offered.
- 7,891 youths attended day camps, residential camps, or specialty camps statewide.
- Eight horse camps in different counties had 251 campers; Saddles and Smiles brought together 36 special-needs children and 10 4-H members plus 21 adult volunteers.
- 34 of our 55 counties, or 18.7%, had youths taking one or more of the following Animal Science projects: Beef (1588), Sheep (1037), Swine (1039), Goat (144), Rabbit (159), and Poultry (10).
- 3,320 exhibits representing 51 counties were displayed for two weeks at the State Fair.
- 12 youths and two adult chaperones traveled to London, England and Korolev, Russia.
- The 2004 Volunteer Camping Assistant program provided camp training to 42 college-age adults.
- Charting youth development program:
 - 268 youths received a Charting pin
 - 256 youths completed Charting
 - 452 youths under age 18 took the Charting Project
 - 204 youths attended a weekend Charting Training
 - 346 youths attended a Charting class
 - 160 youth attended a Charting Workshop
- Character Education: 214 4-H youth campers, 35 4-H volunteer leaders, 35 camp staff, and 15 4-H basketball volunteers
- CARDIAC Fun: Nine faculty and staff were trained to implement the new curriculum.
- 40 Extension professionals were reached at the National Priester Extension Health Conference, with professionals from five states requesting curriculum materials.
- At the 21st Century Families Conference, 21 workshop participants from six states received program materials.
 - 70% of those participants plan to implement at least one idea from the materials.

- 220 conference attendees viewed the exhibit, “A Healthy Future for West Virginia Families.”
- CARDIAC Challenge in 12 counties reached 1,400 campers.
 - 100 adult/teen leaders were reached across the state, and seven counties reported follow-up data.
- 4-H Camps: 1,541 youths attended West Virginia 4-H camps.
- Volunteer Leadership: 688 program volunteers conducted classes or a series of three or more workshops in 34 counties, and single workshops in another 28 counties.
- Volunteer Leadership: 845 adult participants and 5,020 youth participants were reached. Of that number, 2,654 participants reported adoption of change.
 - Seven counties also indicated that they had a newsletter series, carrying information into the homes of their volunteers.
 - 19 counties were engaged in building collaborations.
- 89 agents engaged in youth, family and community assessments.
- 175 participated in five poverty simulation workshops.
- 137 people from 20 counties were trained in homeland security.
- 10 LeadershipPlenty classes were taught to 52 at-risk youths and low-income citizens.
- 86 youths and adults received training on business and workplace etiquette, professionalism, and visioning.
- West Virginia delegates—five youth and two adults—to the National Youth Technology Leadership Conference met with 278 youths and adults from across the United States, Puerto Rico, Canada, and the Virgin Islands.
- Department of Energy Pilot Study was held in Jefferson, Hardy, and Monongalia counties.
- 68 people completed community development training with 20 graduating from the three-year program.
- A 235-page manual of disaster and emergency management resources was developed to enhance WVUES disaster education programming statewide.
- A WVU Extension Disaster and Emergency Management Resource Web page made educational materials and resources more accessible.

Outcomes:

- Work is under way to assist communities with various community and economic development activities.
- New tourism initiatives around the state are being developed.
- Estimated direct visitor expenditures of \$921,720 in Lewis County from Jackson’s Mill fairs and festivals
- Total additional visitor economic impact estimated as \$1,566,924 for Lewis County from Jackson’s Mill
- Enhanced workforce and fire safety initiatives have been implemented.
- Community leadership is being enhanced in communities across the state.

- Using community development principles and partnership development skills they learned at the Community Development Institute, participants organized a regional summit.
- 13 communities implemented recommended improvements, and 61 businesses adopted recommendations from First Impressions, Community Design Team, and Business Retention and Expansion outreach programs.
- The Kitchen Incubator project broke ground in Cabell County.
- A case study of a local planning district is under way.
- Pre- and post-test results showed that nursing home employees had a 154% improvement in hazard awareness after WVU Extension training.
- The Relatives as Parents Program expanded into five additional counties, and new contacts were made in five other counties.
- The Monongah 4-H school-based program addressed at-risk behaviors (high absenteeism, non-communication). Students improved their communication, cooperation, and task completion skills. It gave students a sense of belonging, of being a part of a team, and of enjoyment.
- Mountain Heritage made significant gains in helping participants learn that folk dancing can be fun and an alternative to traditional physical fitness activities.
- The school-based all terrain vehicles (ATV) Safety Training Initiative gained significant traction in Logan County.
 - 95% of the students confirmed that this was the first formal ATV safety training that they have had.
 - Four or five stated that they had taken an approved safety training, which entailed only watching a short video and taking a written test.
- West Virginia youths from Barbour County were named national champions in Land Judging and national champions in Homesite Evaluation. An Extension agent helped develop training materials for national competitions; 28 counties had 417 youths involved in judging teams or events.
- A survey of 1,541 youths attending West Virginia 4-H camps asked them to rate their experience. (Their responses were solicited on a Likert scale, with 1 being “poor” and 5 being “excellent.” Older campers rated the overall experience at 4.59, and younger ones gave a 4.52 rating.
 - Life skills taught included responsible citizenship.
 - Campers increased their ability to work well with others, work as a member of a team, and to lead a group.
 - Many campers were able to identify at least one new skill, personal development tool, or healthy lifestyle behavior they had learned through camp classes.
- Healthy Hearts for 4-H recruited nine counties for a pilot program. The pilot will test the feasibility of a Web-based, leader-driven 4-H curriculum.

Impacts:

- One city reorganized its city government operation and one county updated its personnel policy manual.
- First Impressions programs resulted in beautification and clean-up projects, downtown revitalization and restoration projects, improved signage and planning,

tourism development projects, improved traffic patterns, and infrastructure development.

- Community Design Team visits led to design projects, historic preservation projects, funding to interpret sites of historic interest, development of rail trails, development of walking tours, improved traffic safety patterns and parking, infrastructure development, historic murals, and funding for improvements to parks and recreation facilities.
- WVU Extension Service is an active partner with several key state agencies including the state Office of Emergency Services, Volunteers Organized Against Disaster, and the Federal Emergency Management Agency.
- A construction fall prevention project reduced fall hazards and fall injuries for contractors.
- Train-the-trainer classes involving 541 instructors resulted in workplace safety training for 4,467 individuals.
- Improved workplace and fire safety programs resulted in cost savings.
- Eight counties agreed to be members of a pilot demonstration project and are working with W.Va. Department of Health and Human Resources in writing a proposal for \$1,115 grant money
- WVUES faculty increased involvement in Apprenticeship for Child Development Specialists state and local activities; they served on the state Apprenticeship for Child Development Specialists Advisory Board, partnered as contributing authors for publications (specifically the West Virginia Early Childhood Quarterly), and made conference presentations.
- Of 3,334 children Energy Express served, 64% maintained or increased reading scores as opposed to a typical decrease in reading achievement over the summer.
- 95% of the students polled in Logan County confirmed that the WVU Extension School-based ATV Safety Training Initiative was the first formal ATV safety training they had taken.
- 70% of 21 workshop participants from six states at the 21st Century Families Conference planned to implement at least one idea from the CARDIAC Fun materials.
- At least one new skill, personal development tool, or healthy lifestyle behavior was learned through camping.
- Volunteers acquired new knowledge in order to change attitudes and ultimately behaviors.
 - 49 counties reported a change in knowledge adopted by participants
 - 43 a change in skills
 - 38 a change in attitude
 - 36 a change in behavior
- Along with change comes a need for new and/or different resources.
 - 13 counties developed curricula
 - 19 developed fact sheets/newsletters
 - 22 developed Web sites or an Internet presence.
 - 10 counties reported 46 new resources
 - Four counties developed new funding sources in the amount of \$21,845.

- Faculty members said that they had networking and partnering relationships with a variety of outside organizations.

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 Extension’s programming efforts. As the largest youth development organization in West Virginia, 4-H is strong and vibrant, and in “sync” with the essential elements of positive programming for youth. We continue a tradition of experiential learning with programming content that is relevant to the needs of youth in the 21st century. However, the number of Extension faculty at the county level is decreasing yearly, which creates a serious challenge to continue developing programs with impact that address this goal.

Total expenditures by source of funding and FTE for goal

Federal Smith-Lever	\$2,210,000	27.73 FTE
State matching	\$1,980,000	45.89 FTE
County matching	\$ 230,000	8.95 FTE

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 created 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 team 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 grassroots 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, the *state and local government decision-making* program 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 education programs on strategic planning, economic development, homeland security, organizational studies, research reports, and media releases.

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 small towns and cities in W.Va. to initiate revitalization programs that improve the 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. The *rural and small business development* program seeks 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.

Another new program effort is *disaster education*. The significance of this program initiative relates to the fact that West Virginia has been prone to disasters, especially floods, in recent years. Over the past six years, every county in West Virginia has been included in one or more presidential declared disasters. The need to strengthen Extension's disaster education capabilities became even more apparent after the emergence of homeland security concerns; the spread of animal and human diseases; and the development of erratic weather patterns that cause drought, increased flooding, and dangerous winter storms. This program's goal is to strengthen WVU Extension's capacity to respond to the threat of natural and manmade disasters on a more systematic, timely, proactive, and comprehensive basis.

Impacts/Accomplishments:

Seven Extension faculty completed a train-the-trainer program for LeadershipPlenty. One Extension agent taught eight LeadershipPlenty modules to 17 at-risk youths; 14

youths received a LeadershipPlenty certificate for completing the class. Another Extension agent taught two modules to 35 participants.

- In partnership with Extension faculty and university students, a community-based participatory research (CBPR) project engaged community leaders in two counties in designing community research projects that will provide insights on community-based economic development opportunities.
- 86 youths and adults participated in three specialized leadership programs that focused on business and workplace etiquette, professionalism, and visioning.
- The CDIE offered Years I, II, and III in 2004. Sixty-eight people attended a regional community and economic development summit CDIE participants organized using community development and partnership development skills they learned in CDIE; 20 graduated after completing all three years.
- CDIE leaders successfully applied for tax credits awarded through the state's Neighborhood Investment Program. A CDIE participant developed a Community Development Principles and Practices bulletin to facilitate community development work in Gilmer County.
- 10 Extension agents contributed to local leadership development by participating in community volunteer development for flood recovery efforts, community resource development, emergency services development, economic development strategic planning, and service on local boards and commissions.
- 137 people from 20 West Virginia and Ohio counties received homeland security training.
- County solid waste authority officials attended a national conference.
- One county updated its personnel policy manual.
- One city reorganized its city government operation.
- Two counties, one resource conservation and development council, a county economic development authority, and a municipal economic development partnership incorporated strategic planning into their decision-making process.
- 15 educational programs that reached 142 clients were conducted in 17 communities in eight counties.
- *Land-use planning and public policy education* is a new program area. Its goals are to promote implementation of land-use policies and practices to build sustainable communities and to enhance the capacity of elected officials and citizens to make informed decisions on public policy issues. Three initiatives have been identified for focused program contributions: farmland preservation, capacity building for land-use planning, and public policy education.
- 13 communities initiated or implemented recommended improvements, and 61 businesses adopted recommendations.
- *First Impressions* impacts included beautification and clean-up projects, downtown revitalization and restoration projects, improved signage and planning, tourism development projects, improved traffic patterns, and infrastructure development.
- *Community Design Team (CDT)* impacts included design projects, historic preservation projects, funding to interpret sites of historic interest, development of rail trails, development of walking tours, improved traffic patterns and parking, infrastructure development, historic murals, and funding for improvements to parks and recreation facilities.

- *Community Planning* impacts include the development of a Web-based planning curriculum to address development and aesthetic concerns and a community's decision to develop a comprehensive plan.
- Marshall County implemented a Festival of Ideas.
- Pleasants County Commission developed its own 911 capability, resulting in the retention of four jobs and \$23,000, creation of one new job, a \$160,000 addition to local payrolls, and savings of \$52,000 annually to the city.
- The Kitchen Incubator project "broke ground" in Cabell County.
- Brooke County secured \$126,000 in grant funds to support business-related flood recovery activities.
- Workshops, presentations, and trainings were delivered to 106 public and private officials.
- The Moundsville Economic Development Council provided mock riot training.
- The program team is working on expanding Extension's role in farmland protection. A survey for agricultural agents is being developed.
- One faculty team member developed a proposal to create a regional land use network that was adopted by the Northeast Region.
- A case study of a local planning district is being conducted.
- Faculty team members are developing an online land-use training curriculum, a toolbox of land-use resource materials, and a youth awareness educational program.
- Two agents played a key role in the development of their farmland protection board.
- One faculty member served as editor of the state planning commission's newsletter and as its Web master.
- A Geographic Information System (GIS) class was offered to Extension faculty to strengthen their skills in spatial analysis techniques.
- Three issues of a public issues newsletter were released.
- A 235-page manual of disaster and emergency management resources was developed to enhance WVUES's disaster education programming capabilities.
- An Internet-based disaster education training program is under development.
- An emergency preparedness plan for WVU Extension Service is being developed.
- A WVU Extension Disaster and Emergency Management Resource Web page was launched.
- WVUES faculty members participated in the national Extension Disaster Education Network. One specialist served on the board and as chair of the Information Clearinghouse Committee.
- WVUES is an active partner with several key state agencies including the state Office of Emergency Services, Volunteers Organized Against Disaster, and the Federal Emergency Management Agency.
- A Brooke County Extension agent secured \$126,760 in grant funds to assist in county restoration efforts following Hurricane Ivan.

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

Scope of impact: State, multistate

Key Theme 2—Tourism

Brief Description: Tourism generates jobs and income for communities and individuals throughout the state. Extension delivered an online Rural Tourism Development course to help communities to develop tourism activities and events. Extension assisted in evaluating and improving fair and festival events 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 culture 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.

Impacts/Accomplishments:

- WVU Extension is involved in more than 25 fairs and festivals. 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.
- More than 32,000 youth and adult contacts were made through the heritage and culture education programs originating at Jackson's Mill.
- Revenue increased by some \$40,000 for WVU Jackson's Mill, creating an economic impact for Lewis County of approximately \$112,000.
- More than 76,000 people attended fair and festival 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 total of 2,108 children participated in storytelling programs at Jackson's Mill.

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

Scope of impacts: State specific, regional for Jackson's Jubilee Fair

Key Theme 3: Fire Safety

Brief Description: Fire Service Extension at WVU 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 is offered in state, local, and regional settings and includes a broad range of topics in nine emergency services initiative areas, involving more than 150 curriculum classes.

Impacts/Accomplishments:

- West Virginia University Fire Service Extension (WVUFSE) staff has taken the lead in developing, scheduling, and training the state's regional response teams.
- Courses that meet 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 first-ever advanced “Instructors College” was held in conjunction with the state fire school.
- Tabletop and functional exercises supported by Office of Domestic Preparedness Weapons of Mass Destruction were coordinated through the WVUFSE in conjunction with the WVU Virtual Medical Campus. More than 300 participants were involved in the two exercises.
- An adjunct instructor class was held in conjunction with Human Resources personnel from WVU Extension.
- More than 15,500 certificates were issued over the year in collaboration with training partners in more than 1,193 emergency service courses throughout the state and region.

Source of funds: State, fees, and grants

Scope of Impact: State, regional, and national

Key Theme 4—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 provides outreach in the form of teaching, research, and service for these individuals and organizations through single 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 W.Va. workers and their unions, such as health care, retirement, Workers’ Compensation, Social Security, and women’s issues.

Impacts/Accomplishments:

- 33 leadership classes were delivered to 781 participants.
- 15 conferences had a total enrollment of 877.
- 15 safety and health classes were delivered to 296 participants.
- Five summer schools enrolled 316.

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

Scope of impacts: State, regional, national

Key theme 5—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 train-the-trainer courses for construction outreach safety trainers, hazard awareness training for nursing home employees, 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.

Impacts/Accomplishments:

- Safety and Health Extension conducted 223 classes for 4,040 participants.

- 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.
- 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.
- Two new disaster site worker train-the-trainer courses were delivered.
- Pre- and post-test results showed that nursing home employees had a 154% improvement in hazard awareness after training.
- S&HE completed 25 regional train-the-trainer safety classes for 541 students. In turn, these trainers trained 4,467 individuals.
- Approximately 160 safety training classes were conducted for WVU employees.

Source of funding: State, grants, fees

Scope of impacts: State, regional

Key Theme 6—Child Care

Brief Description: *Child care* programs addressed the issue of child-care provider training. This is a serious matter in West Virginia, due primarily to various challenges, such as the rural nature of the state, the large number of limited-resource families, and the scarcity of formal 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 related to developmentally appropriate child-care practices. The goal and objective are accomplished in three basic ways: (1) local training workshops that provide skill-building experiences to those who have daily interactions with 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 Program*, a statewide infrastructure for high-quality training courses.

Impacts/Accomplishments:

- Six counties provided training workshops to 385 program participants.
- Documented changes in knowledge, behavior, skills, and attitudes occurred with approximately 56% of the child-care providers who participated in the program.
- Seven WVUES faculty were trained to deliver formal courses for child-care providers through a W.Va. Department of Education and Department of Labor program, Apprenticeship for Child Development Specialists (Apprentices for Child Development Security).
- Two faculty taught 31 child-care providers in local courses; and four counties have WVUES faculty involvement in leadership roles to support child care center facilities and networks.

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

Scope of Impact: State specific

Key Theme 7—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 goal/objective was to: increase families’ capacity to nurture, support, and guide children to grow and become caring, competent, and healthy individuals. The goal/objective was accomplished with the use of several strategies:

Family Times Newsletter served as the foundation of the parent education program in several counties. Ten issues were distributed to 2,000 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.

Relatives as Parents Program (RAPP) provided support services to grandparents and other relatives who care for children of parents who abuse substances and/or are HIV positive. 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/Accomplishments:

- The *newsletter* has stimulated several family-oriented events, including a Family Times Weekend conference for low-income and at-risk families.
- RAPP has many accomplishments, including: the establishment of support groups /networks in 38 counties. These groups have 234 participants and 106 volunteers. The program trained group facilitators to work with kin-caregivers in local areas, providing support, resources, and referral services
- RAPP has produced these educational products: four quarterly newsletters, a legal guide for kin-caregivers, a curriculum for facilitators working with support groups, and brochures and fliers promoting the program.

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

Scope of Impact: State specific

Key Theme 8—Family Resource Management

Brief Description: An estimated 70% 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 to have some working knowledge of basic financial planning. Today’s teenagers, in adulthood, will be required to take more personal responsibility for actively managing their finances than people of previous generations. To address these needs, the High School Financial Management Planning Program (HSFPP) was implemented. 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 primary objective is to increase high school students' skills in financial management.

Impacts/Accomplishments:

- Two faculty conducted single workshops that reached two program volunteers and seven adult participants.
- Another faculty member conducted a series of three workshops for two youths under age 18 and one adult.
- Seven people indicated that they were changing a behavior.
- Internet resources were developed.
- A state grant supported statewide computer-based training for new WVUES faculty.
- Fact sheets were provided to county faculty to use in promoting financial education.

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

Scope of Impact: State specific

Key Theme 9—Literacy

Brief Description

Energy Express, a six-week program, focuses on the “summer slide” children experience in their 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. A child with a solid educational base is less likely to drop out of school and/or be forced into a low-paying job. 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. This 11-year-old program was recently named one of the 50 Most Innovative Programs by the Global Service Institute’s Innovations in Civic Participation, an independent, nonpartisan, nonprofit organization devoted to advancing the field of service.

The *Family Storyteller* program encourages families with young children to begin reading as early as possible. The program enriches parent-child interaction in the home environment and enhances the language and lifelong learning skills of both parent and child. Young 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 other materials 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. 86% of children who find it difficult to read at the end of first grade also have difficulties three years later. Reading to and with a child can increase the likelihood of that child succeeding in school.

Impacts and Accomplishments

- 87 communities in 44 counties in West Virginia offered Energy Express in 2004.
- 3,334 children entering first through sixth grades were served by the program.
 - 70% of those children were eligible for free and reduced-price school meals
 - 20% required special services through Individual Educational Plans during the school year.
 - 10% were minority children.
 - 64% maintained or increased reading scores as opposed to a typical decrease in reading achievement over the summer.
- 265 youths and 483 adults in six counties participated in Reading Partners.
- 153 youths and 46 adults in seven counties participated in Family Storytellers.

Source of Funding: Federal, state, county, local

Scope of Impact: State specific

Key Theme 10—Youth Development/4-H

Brief Description: Youth development is a natural process of developing ones' 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 the families, peer groups, schools, neighborhoods, and communities.

WVU Extension Service offers local and state 4-H programs that are built on researched youth development principles, including the National 4-H Essential Elements (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). America's Promise has identified these elements as what all young people need in order to develop into productive citizens.

4-H is alive and well in West Virginia. Nearly 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. Youth ages nine to 21 meet to learn, grow, and participate in camps, projects, travels, and presentations on 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 2004, 4,924 West Virginia youths participated in *4-H special clubs*, which focus on a particular subject like horses or nutrition.

Another 1,039 young people participated in *school-based clubs*, such as the Monongah In-school 4-H Program. This program built a working relationship between WVUES and the Marion County Public School System. The two agencies developed an effective intervention process to assist students who were not actively engaged at school. The Monongah program will serve as the preliminary effort to establish a year-round in-school 4-H program that will provide the opportunity to conduct youth development research.

15,951 West Virginia youth participated in a variety of *4-H school enrichment* programs ranging from energy and nutrition to creative arts. One such program is the Mountain Heritage Dance Program for fourth, fifth, and sixth grade students. At the beginning of the school year, teachers begin requesting this program. The agent schedules the four-month sessions. In 2004, 223 students in 11 classrooms completed the program. In addition, folk dancing was offered to 200 youths at the State 4-H Mountain Heritage Dance Weekend.

Demand for *4-H After* school is growing. During the past year, nearly 16,100 youths were enrolled in 21st Century Community Learning Centers grant-funded programs. At least 33,600 state children are not involved in stimulating environments during the after-school hours. Lack of after-school programming results in lost opportunities for social, physical, and intellectual development. And the loss is even greater in high-poverty or high-risk communities.

WVU Extension is working to form the West Virginia Statewide After-school Network, which will include both private and public agencies and organizations interested in ensuring that children spend after-school hours in constructive activities.

This network will work with local communities to promote the development and expansion of after-school programs. The network will support faith-, community- and school-based programs and will view the child within the context of the family and the community.

WVU Extension's CYFAR initiative has decided to support the work of the statewide network. A new CYFAR grant was submitted to the USDA-CREES. The grant is pending.

4-H projects completed during the 2004 program year were displayed at the *State Fair of West Virginia* in the West Virginia.

Workforce Development: Entrepreneurial Education

Every year, hundreds of thousands of new businesses are started in America. Small businesses—not large corporations—will increasingly serve as the country's dominant engine for the creation of jobs and innovative products and services. The 4-H Mini-

Society, 4-H Making a Job, and “Be the E” as entrepreneurship education curriculums are meeting the demand to provide students with the knowledge, skills, and mindsets to meet the challenges of work and community in the 21st century.

Workforce Development: Marketplace for Kids

Drawing from the Mini-Society and Making a Job curriculums of the Marian Ewing Kauffman Foundation, a hybrid program was offered as a three-day workshop. Children’s attendance fees were sponsored by local businesses, and a small grant from a local Wal-Mart supported the program. Through hands-on activities, kids learned the basics of creating and running a small business.

4-H Curriculum: State Youth Technology Team

The West Virginia State Youth Technology Team involves five youths and two adults from five counties 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 training session for the U.S. Department of Energy pilot project. Seven states are involved in the project. The curriculum centers on energy-related science and math.

4-H Curriculum: ATV Safety Research

According to WVU’s Center for Rural Emergency Medicine, in 2002, at least 44 children under age 14 died as a result of ATV-related injuries. Children ages 10 to 14 accounted for more than 75% of these deaths. In 2002, nearly 30,300 children under age 15 and under were treated in hospital emergency rooms for ATV-related injuries. ATV-related injuries are six times more likely to result in hospitalization and 12 times more likely to result in death than bicycle-related injuries.

WVUES received a \$36,000 grant to pilot test a new curriculum in three counties (Mingo, Logan and Randolph). Extension agents taught the draft curriculum to approximately 300 students in fifth and seventh grades. Their assessments, along with results of the pilot with four groups of youths, will impact the development of this national 4-H curriculum.

4-H Curriculum: Agricultural Education (Judging)

Participation in competitive events helps 4-H’ers make and defend decisions, speak publicly, gain knowledge and skills in subject matter, and learn to deal with competitive situations. In 2004, West Virginia offered competitions in forestry, horse, livestock, horticulture, and 4-H land and homesite judging.

4-H Curriculum: Agricultural Education (Equine Science)

Eight horse camps were offered in the state attracted 251 participants. 4-H horse clubs are offered, also. One such program is Jefferson County’s Saddles and Smiles. Launched in the summer of 2004, the program brought together 36 special-needs children, 10 4-H members, and 21 adult volunteers. This successful program has become part of that

county's 4-H program. All horse-related activities in West Virginia's 4-H program help prepare future employees of the state's burgeoning equine industry.

Global Education

4-H's *Global Education* included an exchange between Russian and West Virginia youths, a youth professional exchange with Romania, hosting three 4-H professionals from Grenada at our camps, and a West Virginian participating in the International 4-H Youth Exchange. A Global Education-Curriculum Notebook was prepared and distributed to all 55 county offices.

Camping

West Virginia 4-H has gone camping for more than 75 years. In collaboration with local volunteers, WVUES operates one of the largest residential camping programs in the country. Last year alone, 7,891 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 from age 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 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 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—Character Counts

This program introduces participants to the six pillars of character to its trustworthiness, respect, responsibility, fairness, caring, and citizenship. Structured classes on various aspects of these character traits helps learners apply ethical decision-making on all levels.

Personal Development—Healthy Hearts for 4-H

One of the four Hs is Heart. Symbolically, Heart stands for pride, heritage, and connection. Literally, Heart is central to the body's well-being, and to being. Coronary Artery Risk Detection in Appalachian communities or CARDIAC Fun is a new program aimed at reducing the incidence of heart disease in West Virginia. It targets the child whose lifestyle and habits set up the conditions for developing heart disease later in life. Research conducted in 2002–03 showed that 17% of West Virginia fifth graders had a resistance to insulin, 19% had high blood pressure, 43% were exposed to secondhand smoke, and 45% were overweight. This latter statistic is the most important to this

program in that obesity is the greatest predictor of all other risk factors, and it indicates a statewide need for cardiovascular disease intervention.

Impacts and Accomplishments

- Entrepreneurial training involved 4,390 youth in 12 counties.
- Eight horse camps had 251 campers; Saddles and Smiles brought together 36 special-needs children, 10 4-H members, and 21 adult volunteers.
- 25 youths from seven junior high or middle schools created and marketed their own businesses; 42 adults attended the Business After Hours.
- The Monongah 4-H School program addressed at-risk behaviors (high absenteeism, noncommunication). Students improved their communication, cooperation, and task completion skills. It gave students a sense of belonging, of being a part of a team, and of enjoyment.
- Mountain Heritage made significant gains in helping participants learn that folk dancing can be fun and that it can be an alternative to traditional physical fitness activities.
- Five youths and two adults participated in the *National Youth Technology Leadership Conference*. Approximately 15 hours of topic-specific activities included workshops, hands-on projects, lab experiences, demonstrations, tours, discussions, and guest speakers. In addition to technical content, tracks also included information about related science, ethical issues, career opportunities, and current and potential 4-H programming efforts.
- The U.S. Department of Energy Pilot Study was held in three counties: Jefferson, Hardy and Monongalia.
 - Pilot Site 1 reached 20 youths in grades four through six at a Jefferson County alternative school.
 - Pilot Site 2 involved 11 home-schooled children in Hardy County.
 - Pilot Site 3 worked with a Monongalia County after-school program, *Kaleidoscope*.
- The school-based ATV Safety Training Initiative gained significant traction in Logan County.
 - 95% of the students had had no formal ATV safety training.
 - Four or five students had taken an approved safety training consisting of a short video and a written test.
- Barbour County 4-H'ers were national champions in land judging and homesite evaluation. 28 counties had 417 youths participate in judging teams or events.
- 34 of the 55 counties had youths taking in one or more of the following animal science projects: Beef (1,588), Sheep (1,037), Swine (1,039), Goat (144), Rabbit (159), and Poultry (10).
- 3,320 exhibits representing 51 counties were displayed for two weeks at the State Fair.
- 12 youths and two adult chaperones traveled to London, England, and Korolev, Russia.
- A survey was taken of 1,541 youths who had attended West Virginia 4-H camps. Their responses were solicited on a Likert scale, with 1 being "poor" and 5 being

- “excellent.” Older campers rated the overall experience at 4.59, and younger, 4.52.
- The 2004 VCA program provided camp training to 42 college-age adults.
 - Over Charting’s 50-year history in West Virginia, countless individuals have stayed their course and arrived at their destinations fully prepared to work to the benefit of themselves and others. In 2004,
 - 268 youths received a Charting pin
 - 256 youths completed Charting
 - 452 youths under age 18 took the Charting Project
 - 204 youths attended a weekend Charting training
 - 346 youths attended a Charting class
 - 160 youths attended a Charting workshop
 - 214 4-H youth campers, 35 4-H volunteer leaders, 35 camp staff, and 15 4-H basketball volunteers received training in Character Education.
 - CARDIAC Fun trained nine faculty and staff to implement the new curriculum at Mountaineer Camping Institute.
 - CARDIAC Challenge, implemented by 12 counties, reached 1,400 campers.
 - Healthy Hearts for 4-H recruited nine counties for a pilot program. The pilot will test the feasibility of a Web-based, leader-driven 4-H curriculum.

Source of Funding: Federal, state, county, local

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

Key Theme 11—Leadership Development

Brief Description: In West Virginia, the 4-H youth development program has more than 7,600 volunteers who work with youths and to deliver many youth development program 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 adult women in self-improvement, education, stewardship, and community service program.

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

Local Government Activities

Support from local governing bodies is vital to the sustenance of Extension programming. Many of our county offices receive funding, office space and other resources from county commissions and other local governing entities. It is highly beneficial that our volunteers be aware of who is in their county government and whom they may call on for assistance when funding from federal and state sources are 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 changes in knowledge adopted by its participants
 - 43 reported changes in skills,
 - 38 reported changes in attitude, and
 - 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, and
 - 22 developed Web sites
 - 10 counties obtained 46 new resources
 - Four counties developed new funding sources amounting to \$21,845.00.

Source of Funding: Federal, state, county, local

Scope of Impact: State specific

Key Theme 12—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 is identifying how to develop after-school programming to reach these audiences. A grant proposal was prepared to secure CYFAR funding for 2005.

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 plays the 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 deal with various government agencies and their protocols.

Camping and At-risk Youth

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

Impacts and Accomplishments

- 89 agents engaged in the youth, family, and community assessments.
- Five Poverty Simulations/Workshops had 175 participants.
- 68,416 meals were provided to youths at summer camps.
- 37% of 4-H campers in 40 counties qualified for free or reduced-price meals.
- 19 counties increased the percentage of youth campers who qualified for free or reduced-price meals.

Source of Funding: Federal, state, county, local

Scope of Impact: State specific