UT Extension extends the knowledge and expertise of the University to the people of Tennessee through agents and specialists in all 95 counties of the state. Educational programs in 4-H youth development, agriculture and natural resources, family and consumer sciences and community economic development produce substantial returns to the state. Using research, questionnaires, observations and sales records, an economic impact was estimated at more than $620 million from January 1, 2018 through December 31, 2018 for statewide educational programs.

Recurring Economic Impacts – $378.9 million – 7,578 jobs created or maintained
Recurring economic values (increased revenue, increased savings, and one-time capital purchases) for up to two years after program.

**Sustainable Row Crop Production**
$252.5 million
UT Extension crop variety testing data is used extensively by Tennessee farmers to select the seed that they use to plant their oilseed, grain, and cotton crops. Results from the variety testing program have helped farmers increase yields by identifying the varieties that will perform best in their farming operations. The higher yields resulted in over $123 million in additional income to Tennessee farmers. Row crop producers who adopted best management production practices and implemented integrated pest management practices reduced input costs and increased yields for an economic impact of $77.8 million. The Crop Nutrient Stewardship Educational Project is an integrated research, education and outreach program to develop and distribute information about sustainable crop fertility practices. These recommended practices have improved crop fertility practices on over 535,000 acres for an economic impact over $8.5 million. Producers increased the number of irrigated acres used for corn, cotton, and soybean production and increased their return by $33 million using irrigation instead of dry land production. Row crop producers increased returns by $6.3 million on 159,373 acres by using forward pricing market opportunities as compared to selling at harvest. Direct farm marketing practices and financial planning have generated over $1.7 million in increased sales for farm families.

**Sustainable Nursery, Fruit, and Vegetable Production**
$2.2 million
Tennessee nursery growers depend on UT Extension’s educational programs and plant, pest and soil diagnostic services to produce and market healthy crops. The state’s fruit and vegetable growers depend on Extension agents and specialists regarding variety selection, management, and marketing. The state’s ornamental, fruit, and vegetable producers had more than $2.2 million in increased revenue or savings as a result of UT Extension recommendations.

**Sustainable Livestock Production**
$57.3 million
Challenges facing the beef cattle industry in Tennessee range from the adoption of very basic management practices to complicated global market drivers that affect input costs. Nutritional, reproductive, genetic and health management are areas that most impact profitability. Extension agents delivered more than 32,800 hours of educational programming that reached more than 8400 beef producer with an economic impact of $51.6 million. UT Extension educated farmers on the benefits of warm-season grasses, clover, and stockpiling tall fescue. Extension also demonstrated hay storage, feeding methods to reduce waste and spoilage, and broadleaf week control. Tennessee farmers saved more than $6.6 million from better forage production, including following fertilizer recommendations, storage, and feeding practices. Tennessee horse owners depend on UT Extension’s research-based programs for horse health and nutrition. UT Extension taught rotational grazing to increase forage production, vaccinations, dental care, and correct deworming practices. These practices helped save $1.4 million.

**Community Economic Development**
$21.4 million
Extension community economic development programs produced an estimated $21.4 million in increased revenues and capital purchases such as assisting local charities to obtain grant funds and providing assistance to small businesses.

**4-H Centers**
$8 million
UT Extension’s 4-H program is the largest youth development program in the state, and UT Extension operates four 4-H Centers across the state, providing summer camping and year-round educational experiences. The 4-H Centers are funded
by user fees and provide an economic impact to the communities where they are located by employing staff and purchasing equipment, food, and supplies with a local annual impact of more than $2 million per location.

**Pesticide Safety Education Program and Pest Management**  
$37.5 million

The Pesticide Safety Education program trained 5319 applicators with an estimated annual benefit of over $36.7 million. Landscape and grounds management professionals have benefited from education about pest management practices resulting in $747,750 in increased profitability.

**One-Time Economic Impacts – $241 million**

*One-time non-recurring economic values.*

**UT Gardens/Residential Horticulture**  
$20.8 million

UT Extension provided education in residential horticulture through the UT Gardens, published magazine articles, newspaper articles, “Plant of the Month” Press Releases, websites and radio shows. Consumers bought good and services, fertility products, plants, and pest control products as a direct result of Extension recommendations, programs, plant evaluations, and applied research. It is estimated that this produced $12.2 million in economic activity in Tennessee. Programs were provided to consumers about sustainable methods for plant disease and insect management practices and residential landscape management that resulted in over $8.5 million in reduced maintenance costs.

**Nutrition Education**  
$64.8 million

Family and Consumer Sciences nutrition education programs reach approximately 2 million adults and youth each year across Tennessee through group meetings, worksite sessions, television, and radio programs. Nutrition education studies have found a cost/benefit ratio of $1.00/$10.64. This translates to a return of more than $64.8 million for the investment in UT Extension’s nutrition education programs for the state of Tennessee.

**Health Initiatives**  
$25.3 million

Improving health through increasing exercise and participating in health screenings have shown to improve health and reduce the risk of many chronic diseases. UT Extension Family and Consumer Sciences health education programs have been at the forefront of state and national initiatives to improve community health through the promotion of physical activity and increased access to healthy foods. Health programs saved residents more than $25.3 million in estimated direct medical costs and indirect expenditures.

**Financial Management Programs**  
$128.1 million

The Tennessee Saves program instructs Tennesseans in sound financial practices, encourages them to build assets, and encourages them to reduce dependence on credit and discharge debt. The estimated economic impact of clientele’s saving and debt reduction was $17.3 million. In addition, over 920 families bought homes in Tennessee as a result of participating in home buyer education programs increasing and strengthening economic stability bringing in $110.8 million to communities.

**Strengthening Families**  
$1 million

Family and Consumer Sciences human development programs helped families improve parenting behaviors, strengthen communication skills, manage anger and cope with stress. Afterschool programs resulted in improved grades in math and reading and reduced school absenteeism. These initiatives were estimated to contribute over $1 million in economic benefits to individuals and families.

**Volunteerism**  
$16.6 million

UT Extension agents and specialists managed volunteers for many programs and services including 4-H and Master Gardeners. Volunteers extended the education offered by paid staff. Using the Independent Sector’s dollar value of a volunteer hour in Tennessee ($21.98/hour), the value of the 684,345 volunteer hours served was $16.6 million.

**Cost-Benefit Analysis – $1 to $10.26**

For every $1 in public funds invested in UT Extension programs, an estimated $10.26 is returned to the people of Tennessee.

Compiled from faculty and staff reports by
Karen Franck, Ph.D., Assistant Professor
Department of Family & Consumer Sciences