

## Study Indicates Extension Nutrition Education Program Pays \$10 For \$1 Invested

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### Background

In 1996, the Cooperative State Research, Education, and Extension Service, United States Department of Agriculture (CSREES, USDA) issued a national Request for Proposals (RFP) to conduct a cost benefit analysis (CBA) of nutrition education programs, with emphasis on the Expanded Food and Nutrition Education Program (EFNEP).

Virginia Cooperative Extension (VCE) responded to the RFP and was successful in securing the grant to conduct the study.

EFNEP is primarily targeted to low-income families with children, with the goal of changing behaviors related to improving the nutritional quality of diets, handling food safely, and stretching food dollars. Each year, about 8000 families in Virginia are taught good nutrition in this program.

CBA is the procedure where costs and benefits of a program are identified, measured, and compared in monetary (dollar) terms. Because CBA uses the common metric of dollars to express program outcomes, it answers the question; "Does a program generate net returns to investments?"

### Methods

Tangible benefits (i.e., benefits that can be easily monetized) accruing to 1996 Virginia adult EFNEP

graduating program participants were measured in two ways:

1. The benefit of avoiding or delaying the health care costs associated with treating nutrition-related diseases/conditions addressed in EFNEP. Treating a disease represents a cost. If that cost can be avoided or delayed, this represents a benefit (i.e., costs that are never incurred; costs that are delayed into the future).
2. Avoiding or delaying the loss of productivity from morbidity (i.e., earnings forgone from lost work-days) related to nutrition-related diseases/conditions addressed in EFNEP. Productivity, or personal earnings, is jeopardized if a person becomes ill and cannot work and therefore cannot earn income. Avoiding or delaying onset of a disease becomes a benefit by increasing the person's productivity/earning potential (called human capital).

Ten nutrition-related diseases/conditions were addressed in the study: colorectal cancer, heart disease, stroke, hypertension, osteoporosis, Type 2 diabetes, obesity, commonly occurring infant diseases (i.e., otitis media, respiratory infections, viral infections, gastroenteritis), foodborne illness, and low-birth-weight (LBW) infants.

To determine the number of graduates who would receive the benefits, the risk factors associated with each disease/condition were identified, along with

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the dietary and practice changes associated with risk reduction. Data from the EFNEP Evaluation/Reporting System were used to identify the number of graduates who demonstrated the desirable practices as a result of EFNEP. These graduates were used for the benefit calculations.

## Results

When monetized benefits for the ten diseases/conditions were compared to costs for the 1996 Virginia adult EFNEP, the initial benefit to cost ratio was \$10.64/\$1.00. In other words, for every \$1.00 invested in the program, \$10.64 in benefits from reduced health care costs can be expected.

Additional analyses, conducted to address uncertainties in assumptions made in the initial analysis, yielded benefit to cost ratios ranging from \$2.66/\$1.00 to \$17.04/\$1.00.

## Conclusions

The CBA of Virginia EFNEP indicates that the monetized benefits significantly exceed costs of the program. Because Virginia EFNEP generates net gains, taxpayers are receiving positive returns on their invested dollars in this program.

Additional CBA studies of EFNEP programs are needed and are being considered in other states. While

their CBA results may vary, it is believed that the results found in the Virginia EFNEP Cost-Benefit Analysis are a good approximation of the positive dollar value of EFNEP that is likely to occur nationwide.

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*EFNEP is a Family and Consumer Science Program.*

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