



Annual Economic Contributions of The University of Arizona, Department of Nutritional Sciences — Cooperative Extension Supplemental Nutrition Assistance Program — Education Spending

Ashley K. Bickel, Dari Duval, Vanessa A. Farrell, Linda Houtkooper, Jeffrey Vautour, Scottie Misner

This report summarizes the total annual economic contributions of the UA SNAP-Ed program spending, including multiplier effects, to the Arizona economy for fiscal years 2013-2016. Although presented together in this study, results provide a snapshot of economic activity in a given year and are therefore not cumulative over time. Updates to this study will occur annually, as data become available.

Introduction

The Supplemental Nutrition Assistance Program Education (SNAP-Ed) is a nationwide nutrition education and obesity prevention program funded by the United States Department of Agriculture Food and Nutrition Service (USDA-FNS). In Arizona, the SNAP-Ed program is administered by Arizona Health Zone¹, a public/private partnership that operates throughout the state to implement community nutrition education programs and policy, systems, and environmental change (PSE) interventions to encourage healthy eating, increase physical activity, and maintain appropriate caloric balance for healthy body weights. Programmatic activities engage people in low-income households that receive or are eligible to receive Supplemental Nutrition Assistance Program (SNAP) benefits. An integral partner in this statewide effort is the University of Arizona, Department of Nutritional Sciences - Cooperative Extension SNAP-Ed program (UA SNAP-Ed).

The UA SNAP-Ed is a local implementing agency (LIA) that provides nutrition and physical activity education classes and outreach through community events in a majority of Arizona's 15 counties and is actively engaged in implementing PSE approaches for obesity prevention. The UA SNAP-Ed

delivers direct education to youth and adults in community programs and schools, providing resources and ideas for healthy food choices and physical activities. Complementing direct education interventions, PSE approaches aim to change the environment to make healthy food and physical activity choices easier and include strategies in Food Systems (access to nutritious foods) and Active Living (access to physical activity). Over the last five years, the UA SNAP-Ed has received approximately 40% of AZ Health Zone's federally-awarded funds, making it one of the principal LIAs receiving competitive grant funds from the AZ Health Zone.

Administering the program contributes to the state economy. To implement the UA SNAP-Ed program, goods and services are purchased for day-to-day operations and Arizonans are employed by the UA SNAP-Ed to be educators and program coordinators, contributing jobs and incomes to the state economy. These are considered the **direct effects** of UA SNAP-Ed program spending.

In addition to these direct effects, if spent in-state, purchases made for UA SNAP-Ed program implementation generate a ripple of economic activity – supporting sales, incomes, and

¹ The Arizona Health Zone is formerly known as the Arizona Nutrition Network.

jobs in other Arizona industries. These are called **indirect and induced multiplier effects**. For example, when the UA SNAP-Ed purchases instructional materials, printing and advertising services, and food demonstration equipment and ingredients from Arizona suppliers, those suppliers must in turn purchase inputs from other businesses to produce their goods and services. These business-to-business transactions are called **indirect multiplier effects**. Additionally, when the UA SNAP-Ed program and program vendors employ Arizonans, those employees spend part of their paychecks

at other Arizona businesses to pay for rent, groceries, doctor visits, recreational activities, and other consumer goods and services. These household-to-business transactions are called **induced multiplier effects**.

Combined, the **direct, indirect, and induced effects** measure the total economic contribution of UA SNAP-Ed spending. These contributions can be described using a variety of interrelated metrics (Figure 1). **Sales**, the most common and perhaps easiest to understand, measures the total value of goods and services exchanged. Sales includes the costs of inputs (raw

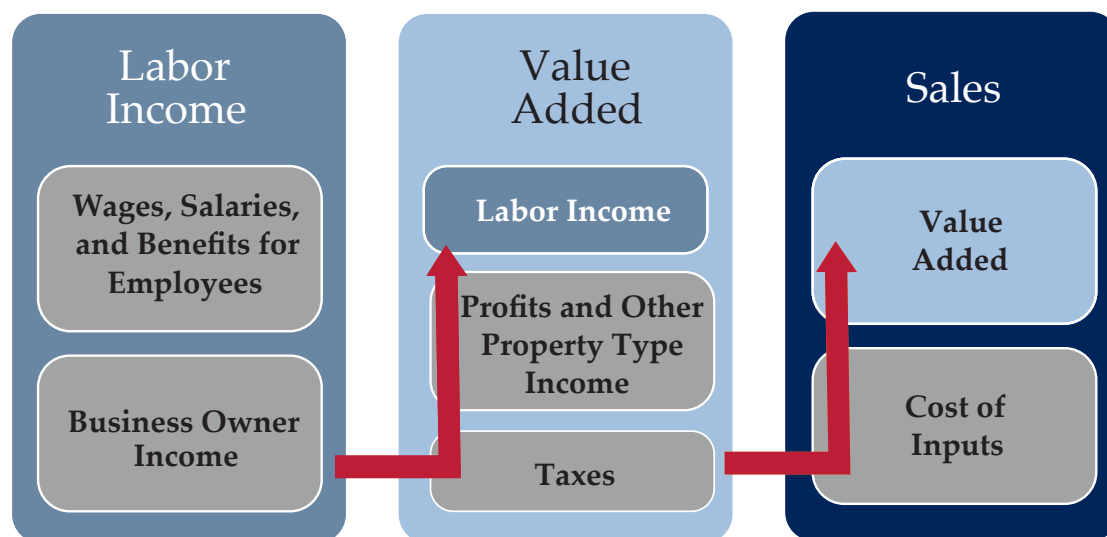


Figure 1. Illustration of relationship between economic metrics

materials, capital, electricity, etc.) plus the value of labor income paid to workers, taxes paid to the government, and any profits or other income generated through the exchange of goods and services. This additional value of sales above and beyond the costs of inputs is called **value added**. **Value added** is another common metric used to measure these effects and is equivalent to gross domestic product (GDP) at the national level. Another metric used to describe economic activity is **labor income**, a subset of **value added**. **Labor income** measures the total value of income paid to workers, including the wages, salaries, and benefits paid to employees, as well as income earned by business owners. Finally, economic activity can be measured in terms of the number of **full-time equivalent (FTE) jobs** supported.

This report summarizes the total annual economic contributions² of the UA SNAP-Ed program spending, including multiplier effects, to the Arizona economy for fiscal years 2013-2016³. Although presented together in this study,

results provide a snapshot of economic activity in a given year and are therefore not cumulative over time. Updates to this study will occur annually, as data become available.

Methods

The total annual economic contributions of the UA SNAP-Ed program spending include expenditures for program implementation (**direct effects**) as well as the economic activity generated from program vendors (**indirect effects**) and employee spending (**induced effects**). These economic contributions are estimated using IMPLAN Version 3.1. IMPLAN is a widely-used input-output data and modelling system that provides a detailed account of the Arizona economy and the relationships and linkages among industries. The software is used to estimate how economic activity in one industry affects economic activity in other industries through backward linkages, or relationships with suppliers of inputs to production.

² This study conducts an economic contribution analysis of UA SNAP-Ed program spending, recognizing that the immediate source of funding is from an in-state sponsor, AZ Health Zone. Whereas AZ Health Zone, the state-level SNAP-Ed program, is able to conduct an economic impact analysis to measure the net economic effects of the program, this analysis measures the gross economic effects of the UA SNAP-Ed program. This distinction is important as gross economic effects do not account for the fact that funds for UA SNAP-Ed program implementation could have otherwise been spent by other local implementing agencies, which also would generate economic activity in the state.

³ Previous analyses were conducted for fiscal years 2011 and 2012 (Kerna et al., 2015a and 2015b). Results for these analyses, however, are not presented in this report as research methods have changed. Whereas the previous analyses relied upon national average spending patterns, current analyses rely on more detailed expenditure data from UAccess Analytics.

Direct effects are measured by the total amount awarded to and spent by the UA SNAP-Ed for program implementation. As mentioned previously, the UA SNAP-Ed serves as one of the primary LIAs in the state, providing nutrition education services for the statewide SNAP-Ed effort. In exchange for these nutrition education services, AZ Health Zone pays the UA SNAP-Ed, generating UA SNAP-Ed **sales**. The value of these **sales** covers day-to-day operational expenses for UA SNAP-Ed programmatic activities and payroll expenses for educators, program coordinators, and other staff. Because the University of Arizona is a public institution, and not a profit-seeking enterprise, the **sale** of program services to the AZ Health Zone represents the costs of inputs (operating expenses for programmatic activities) plus **value added**, where **value added** is simply equal to **labor income** (wages, salaries, and benefits of UA SNAP-Ed personnel) (Figure 1).

Indirect multiplier effects (the effects from business-to-business transactions) are captured using customized UA SNAP-Ed program spending patterns developed from actual UA SNAP-Ed program expenditure data obtained from UAccess Analytics. Customized spending patterns are developed by mapping expenditure categories, or object codes, to corresponding IMPLAN sectors, and calculating spending coefficients (share of total expenses by category). While spending varies from year-to-year, the top expense categories for the UA SNAP-Ed program are typically the same each year and include:

1. Educational and promotional materials,
2. Sub-contracts with other nutrition education service providers,
3. Food demonstration ingredients, garden supplies, kitchen supplies, and other operating supplies, and
4. Printing services for additional outreach materials.

While a majority of educational and promotional materials are purchased from out-of-state vendors, the other top three expenditure categories represent purchases made primarily from vendors located in Arizona. Sub-contracts with other nutrition education service providers reflect partnerships and sub-contracts with organizations such as the Mariposa Community Health Center in Santa Cruz County and the Apache County Board of Supervisors. Subcontracts with local public health programs and agencies are critical to ensuring that nutrition and physical activity education programs are available in rural areas of the state. The UA SNAP-Ed also purchases ingredients for food demonstrations and other supplies at local retail stores and procures services from local printing firms to develop outreach materials, generating additional economic activity for other Arizona businesses.

These **indirect multiplier effects** are modeled through the customized UA SNAP-Ed institution spending pattern and a general state/local government education institution spending pattern (to account for indirect costs). The local purchase percentages (LPPs), or the proportion of local sales fulfilled by local production, are informed by data from

UAccess Analytics. Focusing on the top four UA SNAP-Ed expense categories, out-of-state vendors were identified and the proportion of local spending was estimated. For the remaining expenses, LPPs were set to the IMPLAN SAM model value.⁴

Induced multiplier effects (household-to-business transactions) are captured by applying UA SNAP-Ed payroll expenses to income earned by employees and modeling the economic activity through a labor income change. This captures the ripple of economic activity that occurs when UA SNAP-Ed employees spend their paychecks at Arizona businesses. Industries affected by **induced multiplier effects** include real estate, retail food market, medical, and hospitality industries.

Interpreting Results

As mentioned previously, results provide a snapshot of economic activity in a given year and the level of economic activity can vary substantially from year to year depending on a variety of factors. The following section provides some insights as to some of the reasons why the economic contributions can vary.

First and foremost, the total economic contribution of UA SNAP-Ed program spending varies based on the amount of funding received from the AZ Health Zone (**direct effects**). Generally speaking, the larger the total amount of funding awarded in a year, the larger the economic contribution it will produce. Recall also that state-level SNAP-Ed program funding originates from the USDA Food and Nutrition Service. Funding levels available to the AZ Health Zone for SNAP-Ed, and therefore UA SNAP-Ed, are limited by federal budgets. For example, in 2013, the entire SNAP-Ed budget for Arizona was impacted by federal budget cuts.

Second, **multiplier effects** from UA SNAP-Ed program spending are limited by leakage. Leakage is the phenomenon that occurs when purchases are not made in-state. Only a portion of UA SNAP-Ed supplies and services are purchased from firms or vendors located in Arizona, and it is only this in-state spending that generates a measurable ripple of economic activity in Arizona (**indirect effects**). The magnitude of **indirect effects** of UA SNAP-Ed spending, therefore, can vary depending on the extent to which those purchases are made in-state. That said, not all goods and services are available from Arizona businesses, or in other cases, the highest-quality or most cost-competitive goods or services are available from an out-of-state vendor. For example, a majority of UA SNAP-Ed program educational and promotional materials are produced by businesses in other states. These businesses specialize in the development and production of these types of products and there may not be a business in Arizona that offers the same high-quality product at a cost-effective price.

Finally, **multiplier effects** depend on the share of UA SNAP-Ed spending that is used for employing UA SNAP-Ed

⁴ The SAM values are derived by IMPLAN using the regional social accounting matrix and represent the ratio of local supply and local demand for commodities.

educators and program coordinators (**induced multiplier effects**). Results of this study suggest that, generally, **multiplier effects** are slightly higher when a larger proportion of UA SNAP-Ed expenditures are spent to support the incomes of program staff. This is due, in part, to less leakage resulting from UA SNAP-Ed employees living and working in-state.

Each of these factors contribute, in varying degrees, to the annual economic contribution of UA SNAP-Ed program spending. Figure 2 below presents the annual economic

contributions of UA SNAP-Ed spending to state sales from 2013 to 2016, in relation to the total amount spent by the UA SNAP-Ed for program implementation and personnel expenses.

The total annual economic contributions of UA SNAP-Ed spending for fiscal years 2013-2016 are presented in the following section, with a one-page infographic summary for each fiscal year. Results are presented using the following metrics: **sales, value added, labor income, and FTE jobs**⁵.

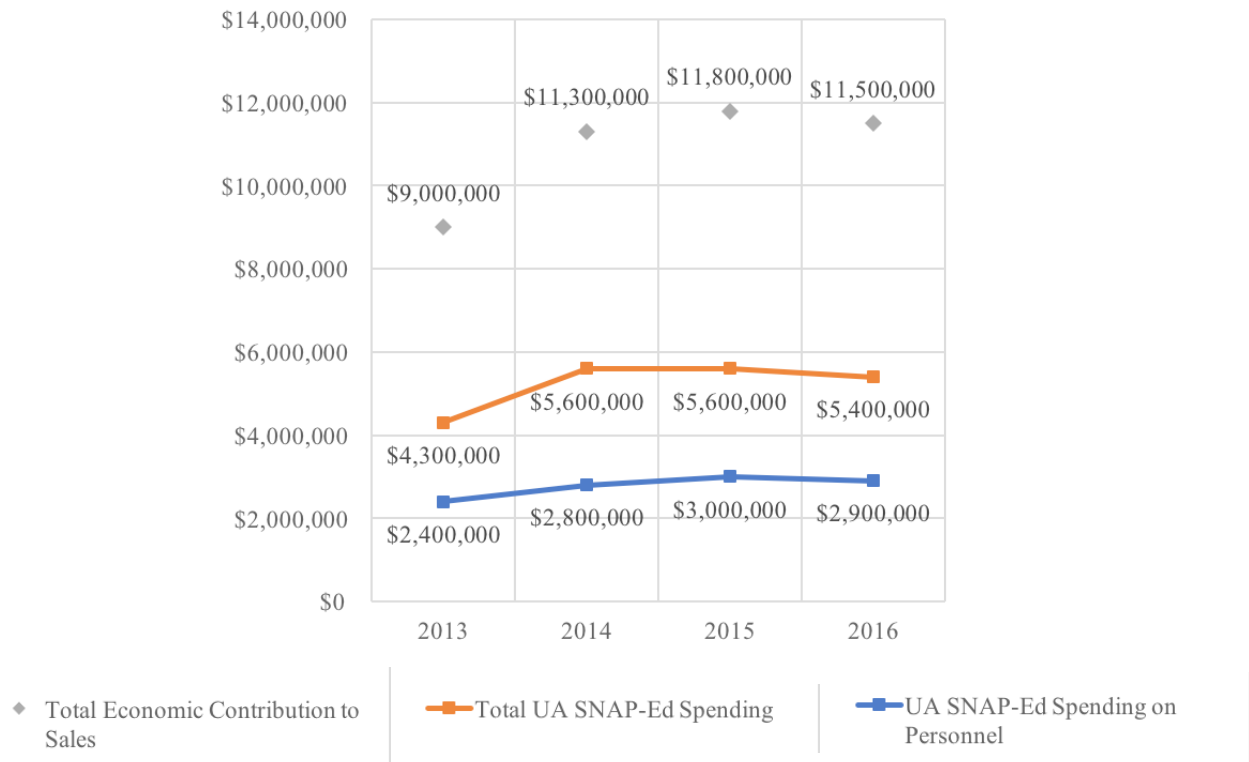


Figure 2. Total economic contribution of UA SNAP-Ed spending in relation to programmatic expenditures, 2013-2016

Resources

IMPLAN Group, LLC. (2014). IMPLAN System Version 3.1 (data and software). 16740 Birkdale Commons Parkway, Suite 206, Huntersville, NC 28078, www.IMPLAN.com.

Kerna, A., G. Frisvold, L. Jacobs, V.A. Farrell, L. Houtkooper, and S. Misner. (2015a). Application of IMPLAN to Extension Programs: Economic Impacts of the University of Arizona Cooperative Extension SNAP-Ed Spending. *Journal of Extension* [On-line], 53(6), Article 6TOT4. Available at <http://www.joe.org/joe/2015december/tt4.php>.

Kerna, A., G. Frisvold, L. Jacobs, V.A. Farrell, L. Houtkooper, and S. Misner. (2015b). The Economic Contribution of the University of Arizona Cooperative Extension Supplemental

Nutrition Assistance Program Education (SNAP-Ed) Spending to the State of Arizona. University of Arizona College of Agriculture & Life Sciences Cooperative Extension az1662. Available at <http://uacals.org/38u>.

University of Arizona Cooperative Extension SNAP-Ed Expense Data from UAccess Analytics and Accountant Principal. Multiple Years. University of Arizona, Department of Nutritional Sciences.

U.S. Department of Labor, Bureau of Labor Statistics. Multiple years. State Occupational Employment and Wage Estimates Arizona. Retrieved from: https://www.bls.gov/oes/current/oes_az.htm

⁵ Direct FTE employment is reported by the UA SNAP-Ed. Indirect and induced employment effects were estimated using the labor income results from the IMPLAN software and annual mean wage data for all occupations from the U.S. Department of Labor, Bureau of Labor Statistics.

Annual Reports by Fiscal Year

2013	6
2014	7
2015	8
2016`	9



Economic Contributions of the University of Arizona, Department of Nutritional Sciences—Cooperative Extension Supplemental Nutrition Assistance Program Education 2013 Spending

Ashley K. Bickel, Dari Duval, Vanessa A. Farrell, Linda Houtkooper, Jeffrey Vautour, Scottie Misner

The Supplemental Nutrition Assistance Program Education (SNAP–Ed) is a nationwide nutrition education and obesity prevention program funded by the United States Department of Agriculture Food and Nutrition Service (USDA–FNS). In Arizona, the SNAP–Ed program is administered by the Arizona Health Zone,¹ a public/private partnership that operates throughout the state to implement community nutrition education programs and policy, systems, and environmental change (PSE) interventions to encourage healthy eating, increase physical activity, and maintain appropriate caloric balance for healthy body weights. Programmatic activities engage people in low-income households that receive or are eligible to receive Supplemental Nutrition Assistance Program (SNAP) benefits.

An integral partner in this statewide effort is the University of Arizona, Department of Nutritional Sciences—Cooperative Extension SNAP–Ed program (UA SNAP–Ed). In 2013, the UA SNAP–Ed delivered nutrition and physical activity education programs to communities in 10 Arizona counties and was actively engaged in implementing PSE approaches to prevent or reduce obesity.

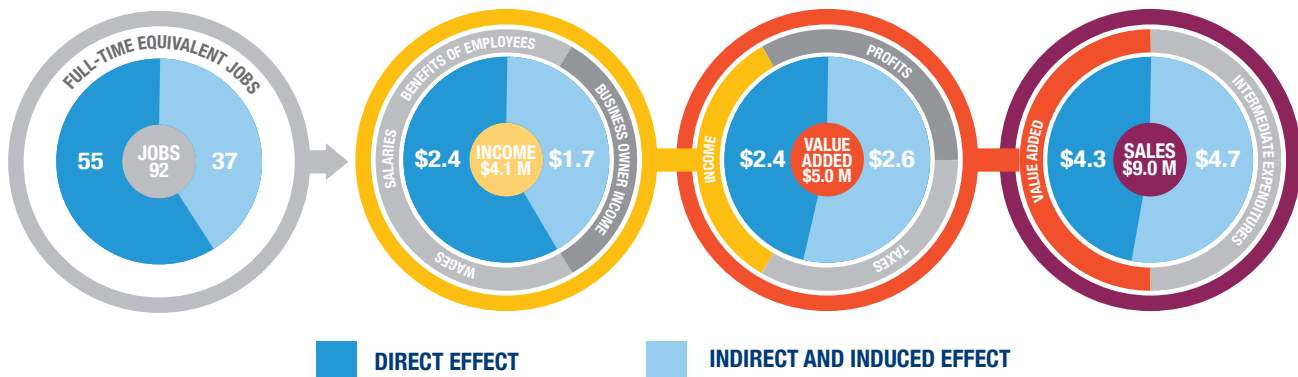
Purchases made for conducting this work generate a ripple of economic activity—supporting sales, incomes, and jobs in other Arizona industries. Economists call these indirect and induced multiplier effects. Indirect effects measure the economic activity generated by business-to-business transactions, or when the UA SNAP–Ed purchases goods and services from resource suppliers for the UA SNAP–Ed activities. Induced effects measure the economic activity generated by household-to-business transactions, or when the UA SNAP–Ed employees spend their earnings to pay for rent, groceries, doctor visits, recreational activities, and many other goods and services.

In 2013, the UA SNAP–Ed program was awarded and spent \$4.3 million in competitive grant funds, accounting for approximately 41% of all AZ Health Zone’s federally awarded funds from the USDA–FNS.²

Accounting for multiplier effects, spending by the UA SNAP–Ed in 2013 supported the following³:



Jobs, Income, Value Added, and Sales Supported throughout Arizona by UA SNAP–Ed Spending, 2013



Income = Wages, salaries, and benefits of employees + Business owner income

Value Added = Income + Profits + Taxes

Sales = Value Added + Intermediate Expenditures (cost of inputs/resources)

¹ The Arizona Health Zone is formerly known as the Arizona Nutrition Network. ² The amount awarded to the AZ Health Zone and the UA SNAP–Ed in 2013 was reduced by a federal budget cut.

³ This document provides information about UA SNAP–Ed program spending for 2013. Results for 2013 may differ from other years as funding levels and spending patterns may have changed. Contributions are not cumulative across years.



Economic Contributions of the University of Arizona, Department of Nutritional Sciences—Cooperative Extension Supplemental Nutrition Assistance Program Education 2014 Spending

Ashley K. Bickel, Dari Duval, Vanessa A. Farrell, Linda Houtkooper, Jeffrey Vautour, Scottie Misner

The Supplemental Nutrition Assistance Program Education (SNAP–Ed) is a nationwide nutrition education and obesity prevention program funded by the United States Department of Agriculture Food and Nutrition Service (USDA–FNS). In Arizona, the SNAP–Ed program is administered by the Arizona Health Zone,¹ a public/private partnership that operates throughout the state to implement community nutrition education programs and policy, systems, and environmental change (PSE) interventions to encourage healthy eating, increase physical activity, and maintain appropriate caloric balance for healthy body weights. Programmatic activities engage people in low-income households that receive or are eligible to receive Supplemental Nutrition Assistance Program (SNAP) benefits.

An integral partner in this statewide effort is the University of Arizona, Department of Nutritional Sciences—Cooperative Extension SNAP–Ed program (UA SNAP–Ed). In 2014, the UA SNAP–Ed delivered nutrition and physical activity education programs to communities in 10 Arizona counties and was actively engaged in implementing PSE approaches to prevent or reduce obesity.

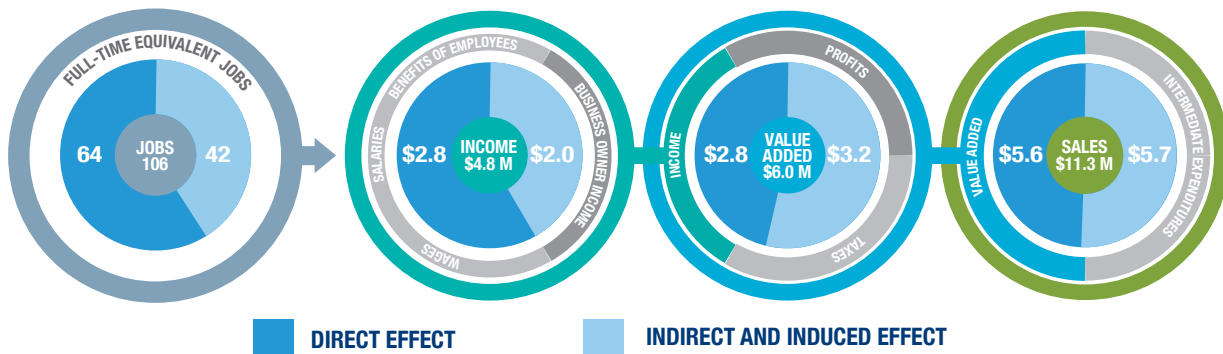
Purchases made for conducting this work generate a ripple of economic activity—supporting sales, incomes, and jobs in other Arizona industries. Economists call these indirect and induced multiplier effects. Indirect effects measure the economic activity generated by business-to-business transactions, or when the UA SNAP–Ed purchases goods and services from resource suppliers for the UA SNAP–Ed activities. Induced effects measure the economic activity generated by household-to-business transactions, or when the UA SNAP–Ed employees spend their earnings to pay for rent, groceries, doctor visits, recreational activities, and many other goods and services.

In 2014, the UA SNAP–Ed program was awarded and spent \$5.6 million in competitive grant funds, accounting for approximately 40% of all AZ Health Zone’s federally awarded funds from the USDA–FNS.

Accounting for multiplier effects, spending by the UA SNAP–Ed in 2014 supported the following²:



Jobs, Income, Value Added, and Sales Supported throughout Arizona by UA SNAP–Ed Spending, 2014³



Income = Wages, salaries, and benefits of employees + Business owner income
Value Added = Income + Profits + Taxes
Sales = Value Added + Intermediate Expenditures (cost of inputs/resources)

¹ The Arizona Health Zone is formerly known as the Arizona Nutrition Network. ² This document provides information about UA SNAP–Ed program spending for 2014. Results for 2014 may differ from other years as funding levels and spending patterns may have changed. Contributions are not cumulative across years. ³ This document has been revised from its original formatting in University of Arizona Cooperative Extension publication az1740-2017, published June 2017. Contributions are not cumulative across years.



Economic Contributions of the University of Arizona, Department of Nutritional Sciences—Cooperative Extension Supplemental Nutrition Assistance Program Education 2015 Spending

Ashley K. Bickel, Dari Duval, Vanessa A. Farrell, Linda Houtkooper, Jeffrey Vautour, Scottie Misner

The Supplemental Nutrition Assistance Program Education (SNAP–Ed) is a nationwide nutrition education and obesity prevention program funded by the United States Department of Agriculture Food and Nutrition Service (USDA–FNS). In Arizona, the SNAP–Ed program is administered by the Arizona Health Zone,¹ a public/private partnership that operates throughout the state to implement community nutrition education programs and policy, systems, and environmental change (PSE) interventions to encourage healthy eating, increase physical activity, and maintain appropriate caloric balance for healthy body weights. Programmatic activities engage people in low-income households that receive or are eligible to receive Supplemental Nutrition Assistance Program (SNAP) benefits.

An integral partner in this statewide effort is the University of Arizona, Department of Nutritional Sciences—Cooperative Extension SNAP–Ed program (UA SNAP–Ed). In 2015, the UA SNAP–Ed delivered nutrition and physical activity education programs to communities in 10 Arizona counties and was actively engaged in implementing PSE approaches to prevent or reduce obesity.

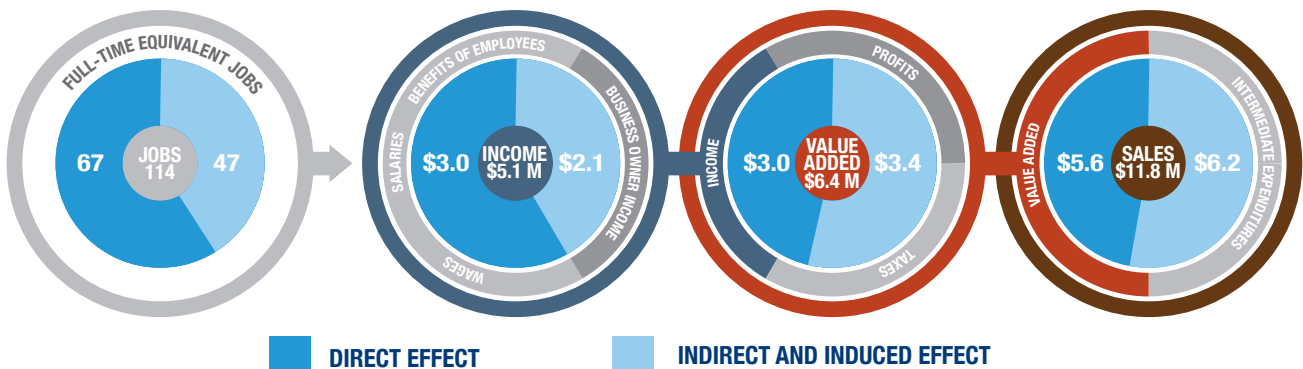
Purchases made for conducting this work generate a ripple of economic activity—supporting sales, incomes, and jobs in other Arizona industries. Economists call these indirect and induced multiplier effects. Indirect effects measure the economic activity generated by business-to-business transactions, or when the UA SNAP–Ed purchases goods and services from resource suppliers for the UA SNAP–Ed activities. Induced effects measure the economic activity generated by household-to-business transactions, or when the UA SNAP–Ed employees spend their earnings to pay for rent, groceries, doctor visits, recreational activities, and many other goods and services.

In 2015, the UA SNAP–Ed program was awarded and spent \$5.6 million in competitive grant funds, accounting for approximately 41% of all AZ Health Zone’s federally awarded funds from the USDA–FNS.

Accounting for multiplier effects, spending by the UA SNAP–Ed in 2015 supported the following²:



Jobs, Income, Value Added, and Sales Supported throughout Arizona by UA SNAP–Ed Spending, 2015



Income = Wages, salaries, and benefits of employees + Business owner income

Value Added = Income + Profits + Taxes

Sales = Value Added + Intermediate Expenditures (cost of inputs/resources)

¹ The Arizona Health Zone is formerly known as the Arizona Nutrition Network. ² This document provides information about UA SNAP–Ed program spending for 2015. Results for 2015 may differ from other years as funding levels and spending patterns may have changed. Contributions are not cumulative across years.



Economic Contributions of the University of Arizona, Department of Nutritional Sciences—Cooperative Extension Supplemental Nutrition Assistance Program Education 2016 Spending

Ashley K. Bickel, Dari Duval, Vanessa A. Farrell, Linda Houtkooper, Jeffrey Vautour, Scottie Misner

The Supplemental Nutrition Assistance Program Education (SNAP–Ed) is a nationwide nutrition education and obesity prevention program funded by the United States Department of Agriculture Food and Nutrition Service (USDA–FNS). In Arizona, the SNAP–Ed program is administered by the Arizona Health Zone,¹ a public/private partnership that operates throughout the state to implement community nutrition education programs and policy, systems, and environmental change (PSE) interventions to encourage healthy eating, increase physical activity, and maintain appropriate caloric balance for healthy body weights. Programmatic activities engage people in low-income households that receive or are eligible to receive Supplemental Nutrition Assistance Program (SNAP) benefits.

An integral partner in this statewide effort is the University of Arizona, Department of Nutritional Sciences—Cooperative Extension SNAP–Ed program (UA SNAP–Ed). In 2016, the UA SNAP–Ed delivered nutrition and physical activity education programs to communities in 12 Arizona counties and was actively engaged in implementing PSE approaches to prevent or reduce obesity.

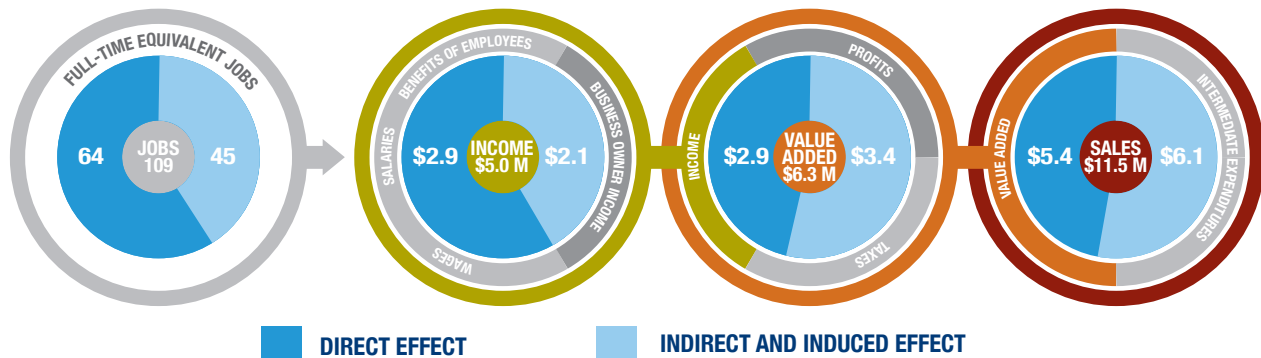
Purchases made for conducting this work generate a ripple of economic activity—supporting sales, incomes, and jobs in other Arizona industries. Economists call these indirect and induced multiplier effects. Indirect effects measure the economic activity generated by business-to-business transactions, or when the UA SNAP–Ed purchases goods and services from resource suppliers for the UA SNAP–Ed activities. Induced effects measure the economic activity generated by household-to-business transactions, or when the UA SNAP–Ed employees spend their earnings to pay for rent, groceries, doctor visits, recreational activities, and many other goods and services.

In 2016, the UA SNAP–Ed program was awarded and spent \$5.4 million in competitive grant funds, accounting for approximately 41% of all AZ Health Zone’s federally awarded funds from the USDA–FNS.

Accounting for multiplier effects, spending by the UA SNAP–Ed in 2016 supported the following ²:



Jobs, Income, Value Added, and Sales Supported throughout Arizona by UA SNAP–Ed Spending, 2016



Income = Wages, salaries, and benefits of employees + Business owner income
Value Added = Income + Profits + Taxes
Sales = Value Added + Intermediate Expenditures (cost of inputs/resources)

¹ The Arizona Health Zone is formerly known as the Arizona Nutrition Network. ² This document provides information about UA SNAP–Ed program spending for 2016. Results for 2016 may differ from other years as funding levels and spending patterns may have changed. Contributions are not cumulative across years.



THE UNIVERSITY OF ARIZONA

Cooperative Extension

THE UNIVERSITY OF ARIZONA
COLLEGE OF AGRICULTURE AND LIFE SCIENCES
TUCSON, ARIZONA 85721

ASHLEY K. BICKEL

Economic Impact Analyst

DARI DUVAL

Economic Impact Analyst

VANESSA A. FARRELL

Associate in Extension, Nutritional Sciences

LINDA HOUTKOOPER

Specialist, Nutritional Sciences

JEFFREY VAUTOUR

Account Manager

SCOTTIE MISNER

Specialist, Nutritional Sciences

CONTACT:

ASHLEY K. BICKEL

ashley.bickel@arizona.edu

**This information has been reviewed
by University faculty.**

extension.arizona.edu/pubs/az1781-2018.pdf

**Other titles from Arizona Cooperative Extension
can be found at:**

extension.arizona.edu/pubs

Any products, services or organizations that are mentioned, shown or indirectly implied in this publication do not imply endorsement by The University of Arizona.

Issued in furtherance of Cooperative Extension work, acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture, Jeffrey C. Silvertooth, Associate Dean & Director, Extension & Economic Development, Division of Agriculture, Life and Veterinary Sciences, and Cooperative Extension, The University of Arizona.

The University of Arizona is an equal opportunity, affirmative action institution. The University does not discriminate on the basis of race, color, religion, sex, national origin, age, disability, veteran status, sexual orientation, gender identity, or genetic information in its programs and activities.