

# Benefits of Farmland Protection

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## Economic Impacts

### 1. An Analysis of the Economic Impact of Pennsylvania's Farmland Preservation Program

This report explores the economic impact of Pennsylvania's Farmland Preservation Program, both at a state and county level. The estimated total economic impact of the program in 2017, including the acquisition of easements and the activity of preserved farms, was slightly more than \$2 billion.

Daniels, Tom. *An Analysis of the Economic Impact of Pennsylvania's Farmland Preservation Program*. University of Pennsylvania, Sep. 2019.

<https://farmlandinfo.org/publications/an-analysis-of-the-economic-impact-of-pennsylvanias-farmland-preservation-program/>

### 2. Assessing the Local Economic Impacts of Land Protection

This study assesses the impact of public and private land protection in New England based on local area employment and housing permits data. The study finds that land protection was associated with a modest increase in employment and did not impact new housing permits, population, or median income.

Katharine R. E. Sims, Jonathan R. Thompson, Spencer R. Meyer, Christoph Nolte, Joshua S. Plisinski  
First published: 26 March 2019 <https://doi.org/10.1111/cobi.13318>

### 3. Community Benefits and Costs of Purchase of Agricultural Conservation Easements

This study examines two local Purchase of Agricultural Conservation Easement (PACE) programs (in Deerfield, MA and Berks County, PA) and evaluates the benefits to each category of stakeholders identified in the study. The study concludes the largest benefit value to stakeholders was from the farm's economic contribution to the community through purchases of local goods and services, employment, and product sales.

Mailler, Carl. *Community Benefits and Costs of Purchase of Agricultural Conservation Easements*. Northampton, MA: American Farmland Trust, 2005.

<http://farmlandinfo.org/publications/community-benefits-and-costs-of-purchase-of-agricultural-conservation-easements/>

### 4. Economic Benefits of Farmland Preservation: Evidence from the United States

This study examines the economic and environmental benefits of farmland preservation programs across the country. The study finds that people are willing to pay for environmental and rural amenities provided by protected farmland, and that farmland preservation programs benefit the local economy. The programs appear to slow farmland loss and may have an impact on local government expenditures and orderly development.

Lynch, Lori, and Joshua Duke. *Economic Benefits of Farmland Preservation: Evidence from the United States*. College Park, MD: UMD Department of Agricultural and Resource Economics, 2007.

<https://farmlandinfo.org/publications/economic-benefits-of-farmland-preservation-evidence-from-the-united-states/>

### 5. Economic Impact of Future Federal Conservation Easement Investments on (Rural) Colorado Communities

This study builds off the author's previous economic impact study (see #6 below) to estimate the future economic impact of the federal Agricultural Conservation Easement Program investment in Colorado's

ongoing but uncompleted land acquisition projects. New economic activity is estimated to create 1,233 new jobs and \$97 million in additional economic value across ten leading industries in the state.

Seidl, Andrew. *Economic impact of future federal conservation easement investments on (rural) Colorado communities*. Regional Economic Development Institute, Colorado State University, June 2020.  
<https://farmlandinfo.org/publications/estimated-economic-impact-of-acep-on-colorado/>

## 6. Estimated Economic Impact of Federal Agricultural Conservation Easement Programs (ACEP) on Colorado

This study surveys recipients of the federal Agricultural Conservation Easement Program funds in Colorado and estimates the program's economic impact across the state. As a result of federal easement payments, an estimated 1,102 new jobs were created along with \$86 million in value-added economic activity. For every dollar invested in federal conservation easements in Colorado, \$2.19 of economic activity is generated.

Seidl, Andrew, Swartzentruber, Ryan, and Hill, Rebecca. *Estimated Economic Impact of Federal Agricultural Conservation Easement Programs (ACEP) on Colorado, 2009-2017*. Colorado State University, July 2018.  
<https://farmlandinfo.org/publications/estimated-economic-impact-of-acep-on-colorado/>

## 7. Estimating the Benefits to Local Stakeholders from Agricultural Conservation Easements

This paper estimates the local benefits of proposed agricultural conservation easements for each type of local stakeholder identified and by type of benefit. An economic value is determined for each benefit and the paper suggests ways for measuring benefits in dollar terms. Farmers, local residents, local businesses, and several other stakeholder groups receive differential benefits from the preservation of farmland in the community.

Esseks, J.D., Owens, R., Francis, C., and Schroeder, F. *Estimating the Benefits to Local Stakeholders from Agricultural Conservation Easements*. American Farmland Trust, November 2003.  
<https://farmlandinfo.org/publications/estimating-the-benefits-to-local-stakeholders-from-agricultural-conservation-easements/>

## 8. Investing in Colorado: Colorado's Return on Investments in Conservation Easements

As of 2017, Colorado's investments in conservation easements have conserved nearly 300,000 acres of prime farmland, in addition to other natural resources. Residents of Colorado have received an estimated \$5.5-\$13.7 billion of economic benefits from land conserved by conservation easements while the State has invested roughly \$1.1 billion. This represents roughly \$4-\$12 of public benefits provided by conserved land for each \$1 invested by the State and a benefit per acre of about \$2,700-\$6,600 against an investment of about \$500 in real 2017 dollars. Investments from the State's farmland protection program (Great Outdoors Colorado) have also been matched by over \$760 million in local government and federal funding and real estate value donated by landowners.

Seidl, A., Anderson, D., Bennett, D., Greenwell, A., and M. Menefee. 2017. *Colorado's Return on Investments in Conservation Easements: Conservation Easement Tax Credit program and Great Outdoors Colorado*. Colorado State University, Fort Collins, Colorado.  
<https://farmlandinfo.org/publications/colorados-return-on-investments-in-conservation-easements/>

## 9. Northeast Economic Engine: Agriculture, Forest Products and Commercial Fishing

This report illustrates the importance of agriculture, commercial fishing, forest products and related industries to the Northeast economy. Utilizing 2017 data, this economic impact analysis determined the region's agriculture, fishing and forestry generated an economic impact of \$102.4 billion in the eight Northeast states

in 2017. Furthermore, agriculture, fishing and forestry supported 513,018 jobs across the eight Northeast states.

Lopez, Rigoberto A., Jeremy Jelliffe, Chris Laughton. *Northeast Economic Engine: Agriculture, Forest Products and Commercial Fishing*. Farm Credit East, 2020.

<https://farmlandinfo.org/publications/northeast-economic-engine-agriculture-forest-products-and-commercial-fishing/>

#### 10. The Power of Leveraging Local and Federal Dollars to Strengthen Agricultural Land Easement Investments

Through four case studies across Michigan, Wyoming, Colorado, and Minnesota, this report examines the benefits of FRPP investments. It details specific economic contributions to employment and direct/indirect sales, and highlights stakeholder interviews in the four communities.

Sargent, Jessica, Daniel Stevens, and Kendall Sleep. *The Power of Leverage Local and Federal Dollars to Strengthen Agricultural Land Easement Investments*. Washington DC: Land Trust Alliance, 2012.

<https://farmlandinfo.org/publications/the-power-of-leveraging-local-and-federal-dollars-to-strengthen-agricultural-land-easement-investments/>

#### 11. What Have We Learned from Over 20 Years of Farmland Amenity Valuation Research in North America?

This article reviews over 30 studies conducted between the 1980s and early 2000s to demonstrate the amenity values generated by farmland. It finds that estimated farmland amenity values are sensitive to increasing acreage, regional scarcity, alternative land use, public accessibility, productivity quality, active farming, and intensive agriculture. Farmland amenity values are also sensitive to socio-demographic characteristics of beneficiaries.

Bergstrom, John, C. and Richard C. Ready. "What Have We Learned from 20 Years of Farmland Amenity Valuation Research?" *Review of Agricultural Economics* (2006) 31(1): 21-49.

<https://farmlandinfo.org/publications/what-have-we-learned-from-over-20-years-of-farmland-amenity-valuation-research-in-north-america/>

### Impacts Based on Landowner Surveys

#### 1. Connecticut Farmland Preservation Program Study: Highlighted Findings

This report analyzes the operational characteristics, motivations, and changes in future plans of participants in the Connecticut Farmland Preservation Program. In 2006, over a third of participants reported their primary use of program funds was to pay down debt; over a quarter reported savings or investment; approximately 10 percent reported capital improvements and retirement savings.

American Farmland Trust and Connecticut Department of Agriculture. *Connecticut Farmland Preservation Program Study: Highlighted Findings*, 2008. <https://farmlandinfo.org/publications/connecticut-farmland-preservation-program-study-highlighted-findings/>

#### 2. From the Field: What Farmers Have to Say About Vermont's Farmland Conservation Program

This report includes results from a survey of participants and service providers that work with the Vermont Farmland Conservation Program. The survey characterizes debt payments as a major driver of program participation, with 59 percent of participants able to pay down debt, and 20-22 percent able to purchase or

improve existing land as a result of easement payments. The report also provides in-depth case studies of farms' decision-making process and outcomes of participating in the program.

Ferguson, Kirsten and Cosgrove, Jeremiah. *From the Field: What Farmers Have to Say About Vermont's Farmland Conservation Program*. American Farmland Trust, 2000.

<https://farmlandinfo.org/publications/from-the-field-what-farmers-have-to-say-about-vermonts-farmland-conservation-program/>

### 3. Impacts of the Federal Farm and Ranch Lands Protection Program: An Assessment Based on Interviews with Participating Landowners

This report includes survey results and case studies highlighting local economic benefits from the proceeds of the Federal Farm and Ranch Lands Protection Program (FRPP). Over two-thirds of survey respondents reported spending easement proceeds to meet personal or household needs, while a slight minority reported spending proceeds on capital improvements and repaying loans. Twenty percent reporting spending proceeds to install or expand conservation practices.

American Farmland Trust. *Impacts of the Federal Farm and Ranch Lands Protection Program: An Assessment Based on Interviews with Participating Landowners*. American Farmland Trust, 2013.

<https://farmlandinfo.org/publications/impacts-of-the-federal-farm-and-ranch-lands-protection-program-an-assessment-based-on-interviews-with-participating-landowners-summary-of-findings/>

### 4. Investing in the Future of Agriculture: The Massachusetts Farmland Protection Program and the Permanence Syndrome

This study documents the impacts of the Massachusetts Agricultural Preservation Restriction program, including motivations for participation, use of funds, and satisfaction with the program. Nearly 75 percent of farmers reported spending easement proceeds on capital improvements, while more than 70 percent of farmers reported their intent to pass protected land on to their family members in the future, indicating lasting agricultural impact.

Sherman, Robin, Milshaw, Suzanne, Wagner, Robert, and Freedgood, Julia. *Investing in the Future of Agriculture: The Massachusetts Farmland Protection Program and the Permanence Syndrome*. American Farmland Trust, Deerfield Land Trust, and Franklin Land Trust, 1998.

<https://farmlandinfo.org/publications/investing-in-the-future-of-agriculture-the-massachusetts-farmland-protection-program-and-the-permanence-syndrome/>

### 5. New York Farmland Protection Survey

This survey identifies participants' motivations and attitudes toward the New York Farmland Protection Program. Paying down debt and purchasing more land are noted as the most common uses of the funds. The study also reveals that 46 percent of respondents would have likely sold most or all of their land for development, indicating that the program has helped to stop significant farmland loss in the state.

Ropel, Stephen C., and Blair L. Smith. *New York Farmland Protection Survey*. National Agricultural Statistics Service, 2010.

<https://farmlandinfo.org/publications/new-york-farmland-protection-study-2009/>

### 6. Ohio's Agricultural Easement Purchase Program: From Pilot to Permanent Presence A Survey of AEPP Participants

This survey identifies participant attitudes about the Ohio Agricultural Easement Purchase Program, looks at farm characteristics and how participants used the funds received. Most participants grow corn and soybean;

these producers primarily used the funds received (more than 52 percent of the program's funds) to invest in the farm and contribute to savings.

Clark, Jill. *Ohio's Agricultural Easement Purchase Program: From Pilot to Permanent Presence A Survey of AEPP Participants*. Center for Farmland Policy Innovation, 2010.

<https://farmlandinfo.org/publications/ohios-agricultural-easement-purchase-program-a-survey-of-aepp-participants-executive-summary/>

## 7. Supplying Preservation: Landowner Behavior and the Delaware Agricultural Lands Preservation Program

This study surveys landowners participating in Delaware's Agricultural Lands Preservation Program to assess their farm characteristics, their motivations to participate, and how they decided to use their funds. A majority of landowners find program participation helps to relieve pressure from debt, provides retirement security, and allows them to reinvest in their operations.

Duke, Joshua M. and Ilvento, Thomas W. *Supplying Preservation: Landowner Behavior And The Delaware Agricultural Lands Preservation Program*. Research Reports 15817, University of Delaware, Department of Food and Resource Economics, 2004. <https://udspace.udel.edu/bitstream/handle/19716/12610/RR04-01.pdf?sequence=1&isAllowed=y>

## Fiscal Impacts

### 1. Capitalization of Open Spaces into Housing Values and the Residential Property Tax Revenue Impacts of Agricultural Easement Programs

This article models the benefits to residential landowners who live near open space purchased through agricultural preservation programs in three Maryland counties. Findings show preserved open space increases property values on adjacent residential parcels in two of the three counties. The increased property tax from these agricultural easements could generate enough revenue to purchase a significant portion of more open space acres, especially if one considers that the increases in tax revenue go on in perpetuity.

Geoghegan, Jacqueline, Lori Lynch, and Shawn Bucholtz. "Capitalization of Open Spaces into Housing Values and the Residential Property Tax Revenue Impacts of Agricultural Easement Programs." *Agricultural and Resource Economics Review* (2003) 32 (1). <https://doi.org/10.1017/S1068280500002483>.

### 2. Land Conservation and Property Taxes in Vermont

This report examines the effect of public/private land conservation on school and municipal taxes in Vermont communities and the trade-offs between conservation and development. It also offers discussion points for decision-making at the town-level. The study concludes that more development tends to lead to higher taxes, and on average, tax bills are lower in the towns with the most conserved land.

Brighton, Deb. *Land Conservation and Property Taxes in Vermont*. Vermont Land Trust, 2009. <https://farmlandinfo.org/publications/land-conservation-and-property-taxes-in-vermont/>

### 3. Marginal Property Tax Effects of Conservation Easements: A Vermont Case Study

This study examines the effect of conservation easements on short-term and long-term property tax rates in Vermont. Results indicate that private conservation easements increase property tax rates in the short-term but are tax-neutral in the long-term.

King, Jonathan R., and Christopher M. Anderson. "Marginal Property Tax Effects of Conservation Easements: A Vermont Case Study." *American Journal of Agricultural Economics* (2004) 86 (4): 919–32.  
<https://www.jstor.org/stable/4492782>

## Cost of Community Services Studies

Cost of Community Services (COCS) studies are a case study approach used to determine the fiscal contribution of local land uses. A subset of the much larger field of fiscal analysis, COCS studies are an inexpensive and reliable tool to measure direct fiscal relationships, and to evaluate working and open lands on equal ground with residential, commercial, and industrial land uses. COCS studies are a snapshot in time of costs versus revenues for each type of land use. They do not predict future costs or revenues or the impact of future growth. They provide current information to help local officials and citizens make land use and policy decisions.

### 1. A Meta-Analysis of Community Service Studies

This study conducts a quantitative meta-analysis of COCS studies that focus on three land-use categories: residential, commercial/industrial, and agricultural/open-space. It finds that residential land uses tend to have ratios greater than one, while commercial/industrial and agricultural/open-space land uses tend to have ratios less than one, and density and median home value have no effect on residential ratios.

Kotchen, M., and Schulte, S. *A Meta-Analysis of Cost of Community Service Studies*. University of California at Santa Barbara, 2008.

<https://farmlandinfo.org/publications/a-meta-analysis-of-cost-of-community-service-studies/>

### 2. Cost of Community Services Fact Sheet

This fact sheet explains the methodology, history, and purpose of COCS studies, and shows the results of 162 studies conducted in local communities across the U.S. The findings are consistent with those of conventional fiscal impact analyses, which document the high cost of residential development and recommend commercial and industrial development to help balance local budgets. In nearly every community studied, farmland generated a fiscal surplus to help offset the shortfall created by residential demand for public services. This is true even when the land is assessed at its current, agricultural use. However, as more communities invest in agriculture this tendency may change. For example, if a community creates a purchase of agricultural conservation easement program, the local government may spend more on working and open lands than these lands generate in revenue.

Farmland Information Center. *Cost of Community Services Studies*, American Farmland Trust, 2016.

<https://farmlandinfo.org/publications/cost-of-community-services-studies/>

### 3. Cost of Community Services Studies: Making the Case for Conservation

As of January 2002, 83 Cost of Community Services (COCS) studies conducted in 19 states found that tax and other revenues collected from farm, ranch, and forest landowners more than covered the public service costs these lands incur. This report describes what COCS studies are and how they are performed. It describes how communities have used the results and evaluates the COCS approach in context with other fiscal impact methodologies. Finally, the report shares lessons learned on how to capture each community's unique budgetary situation accurately and objectively.

Freedgood, Julia et al. *Cost of Community Services Studies: Making the Case for Conservation* American Farmland Trust, 2002.

<https://farmlandinfo.org/publications/cost-of-community-services-studies-making-the-case-for-conservation/>

4. Fiscal Impacts of Land Use in Massachusetts

This study analyzes the tax base for three land use categories in four communities across Massachusetts. Each town had lower expense to revenue ratios for open space and commercial land than residential land. The ratios calculated in this study are similar to other cost of community services ratios for towns both within and outside of Massachusetts in the past.

Katanzarro, Paul. *Fiscal Impacts of Land Use in Massachusetts*. University of Massachusetts at Amherst, 2019. [https://masswoods.org/sites/masswoods.org/files/pdf-doc-ppt/cost\\_percent20of\\_percent20community\\_percent20services\\_percent20for\\_percent20four\\_percent20towns.pdf](https://masswoods.org/sites/masswoods.org/files/pdf-doc-ppt/cost_percent20of_percent20community_percent20services_percent20for_percent20four_percent20towns.pdf)