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The economic impact of farmers' markets and a state level locally grown campaign

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ABSTRACT

This study evaluates the direct and indirect economic impact of farmers market and the Certified South Carolina Grown Campaign as transmitted through farmers markets on the South Carolina Economy. We developed an IMPLAN-based SAM model of the South Carolina economy that takes into account the opportunity cost of money spent at farmers' markets to estimate the net as opposed to gross impact of the campaign on the state economy. Our results indicate that the Certified South Carolina Grown Campaign (an example of a widely used "buy local foods" policies) does not make a major contribution to the state economy. Our findings suggest that policy makers need to augment buy local campaigns with other efforts, such as a value-added processing of regionally produced foods, if such policies are to serve as a means of generating economic growth.

Introduction

Regional promotion campaigns play an important role in agricultural and food policy around the world (Kaiser et al., 2005). In the European Union, such campaigns have been supported by the 1992 legislation of the European Commission [Regulation (EEC) N 2081/1992]. This legislation sought to enable producers to legally protect their regional products based on either destination of origin or geographical indication with the goals of diversifying regional agricultural production, stimulating the economy of rural areas, and enhancing regional farm incomes. Additional legislation in 2001 provided guidelines for state aid for promoting products that are protected based on their destination of origin. Most recently, legislation [EC Regulation 510/2006] replacing the1992 Act provided additional steps for using certification as a means of insuring food safety, quality, and environmental preservation, as well as authenticity and origin.

In the United States, regional promotion programs have also seen substantial growth since the mid-1990s. A large portion of this increase resulted from the Community Food Security Act (part of the Nutrition Title of the Federal Agriculture Improvement and Reform Act of 1996, P.L. 104-127), which generated $22 million of support for 166 local food system initiatives from 1996 to 2003 (Tauber and Fisher, 2002). The number of states conducting such programs increased from 23 to 43 between 1995 and 2006 (Patterson, 2006) and by 2010 all 50 states had a program in place (Onken and Bernard, 2010). Advocates see these advertising campaigns as another way to retain consumer dollars and enhance regional-(primarily state)-level economies, as well as support local farmers. In fact, studies (Carpio and Isengildina-Massa, 2009) demonstrate that one of the main reasons for buying locally grown products is to support local economy. Therefore, much of these efforts have centered on developing local food systems, including direct marketing of agricultural products.

The growth in local food systems, including direct marketing by farmers, is demonstrated by the increases in the value of agricultural products sold directly to individuals for human consumption from $404 million in 1992 to $1121 million in 2007 (US Department of Agriculture, US Census of Agriculture, 2009). The number of farms selling products directly to the consumer also increased in the same period from 86,432 to 136,817. The number of farmers' markets, a major component of local foods systems, has grown from 2410 in 1996, to 4385 in 2006, to 7864 in 2012 (US Department of Agriculture, Agricultural Marketing Service, 2012).

Despite their popularity, the contributions of local food campaigns are not well understood. Previous studies evaluating regional promotion campaigns showed mixed evidence regarding

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campaign effectiveness (Carpio and Isengildina-Massa, 2009; Nganje et al., 2011; Govindasamy et al., 2004; Patterson et al., 1999). Furthermore, some studies that attempt to examine the direct and indirect economic impacts of local foods in general (Hodges et al., 2014) and local food campaigns in particular (Govindasamy et al., 2004; Moore School of Business, 2010) have markedly overestimated their impact. The challenge in correctly assessing the economic impacts of regional promotion campaigns lies in recognizing that most local food sales are not "new" sales but rather a form of input substitution where purchases at the grocery stores are replaced with farmers' market purchases and spending on (non-local) products made outside of the region is substituted with spending made locally (Boys and Hughes, 2013). In this regard, however, local food systems can have an opportunity cost in terms of local spending that is foregone elsewhere. It is important to set the record straight on the actual contribution of regional promotion campaigns and to provide feedback to policy makers that may influence future development of local food systems.

In the efforts to further develop locally grown foods in the US, we have also started to observe situations where locally grown programs are starting to overlap or even compete. For example, Hughes and Boys (2015) describe a situation in Page County, Virginia where a local nonprofit based "Page County Grown" effort (Page County Grown, 2015), is combined with a regional program ("Shenandoah Valley Buy Fresh, Buy Local", 2015, developed by the Virginia Cooperative Extension Service), and additionally two state-level programs conducted by the Virginia Department of Agriculture (a "Virginia Grown" campaign (2015) for fresh products; and "Virginia's Finest" for value-added Virginia-produced food items, Virginia's Finest Specialty Foods and Beverages, 2015). At what point do we reach market saturation between such efforts; and when do these geographically overlapping efforts start to "cannibalize" each other's customers (Hughes and Boys, 2015)? A correct assessment of these programs has to take into account interactions between all relevant efforts.

Our study contributes to a growing literature with regard to the local food movement in which buy-local-food campaigns and farmers' markets form key components (Martinez et al., 2010; Low and Vogel, 2011). The goal of this study was to evaluate the direct and indirect economic impact of the farmers' markets and the Certified South Carolina Grown Campaign as transmitted through farmers' markets on the South Carolina economy; thus, taking into account the interactions between the two. We applied the method originally developed by Hughes et al. (2008), which allows controlling for opportunity costs and assessing the net, rather than the gross economic impact of a regional promotion campaign on local economy. The analysis included development of an IMPLAN-based (Minnesota IMPLAN Group, 2000) Social Accounting Matrix (SAM) model to evaluate the impact of farmers' markets. Secondary data from the Agricultural Research Management Survey (ARMS), South Carolina Census of Agriculture, and the Bureau of Labor Statistics were used to calibrate the model to better reflect the characteristics of farms that sell at farmers' markets and their participation in the South Carolina economy. The impact of farmers' markets was evaluated using an estimate of their total annual direct sales based on the data obtained from the stratified surveys of farmers' market managers and vendors. Consumer surveys provided data for the opportunity cost analysis. Our findings assess the economic impact of the Certified South Carolina Grown Campaign (net of opportunity costs) as transmitted through farmers' markets on the South Carolina economy and provide feedback and policy recommendations regarding the contribution of such campaigns to the economic growth.

Data and methods

The *Certified South Carolina Grown* campaign was launched on May 22, 2007 and was financed by special appropriations from the state legislature. Annual campaign expenditures averaged $1.3 million during 2007–2011. Campaign activities included the design and distribution of labels and signage for "Certified South Carolina Grown" products; the advertisement of South Carolina food products on television, radio, magazines, newspapers and billboards; and the "Fresh on the Menu" component focusing on advertising at local restaurants. Most of the campaign expenditures (over 70 percent) were devoted to multimedia advertising.

The primary data for this study were collected from three surveys: two stratified surveys of farmers' markets, where managers and vendors were surveyed and a random survey of South Carolina consumers. A population of 98 farmers' markets in South Carolina in 2011 was stratified based on the length of operation (1–3 years, 4–9 years, and 10 or more years); location in the urban (population of 50,000 or more), less urban, and rural areas; and location in the upstate, midlands, and low-country[1] regions of the state. Our stratified sample consisted of 48 farmers' markets. With 12 market managers responding and assisting in conducting vendor surveys, a 25 percent response rate was deemed sufficient for drawing inferences.

Survey results indicated that responding managers described the size of their markets as averaging about 26 vendors and about $61,000 in annual sales. Most markets (50 percent) operated once a week. Half of the managers indicated that the number of vendors that participated in their farmers' market increased by about 18 percent over the last three years. Most farmers' markets (75 percent) participated in the campaign by displaying campaign logos on stands. Only 25 percent went as far as applying logos on products. About half of the markets included campaign logos in their marketing materials. Given the fact that promotion materials were provided by the SC Department of Agriculture free of charge, most managers (67 percent) indicated that there were no costs associated with participation. Most responding managers (83 percent) indicated that they were satisfied or very satisfied with the campaign. Managers also indicated that the largest effect was increased customer traffic for their farmers' markets.

The results of the farmers' market vendor surveys revealed that 44 percent of vendors' annual farm sales come from farmer's markets. Among other marketing venues, these farmers reported using restaurants and grocery stores. The average increase in annual sales attributed to the effect of SC grown campaign was 11.1 percent, which resulted from a 5.6 percent increase in prices and a 9.8 percent increase in quantity of products sold. In response to the campaign, vendors reported a 6.3 percent increase in production. Vendors attributed an 8.9 percent increase in their profits to the effects of the campaign. Not surprisingly, most vendors (49 percent) were satisfied or very satisfied with the campaign.

Consumer data were collected in the spring of 2011 via a mail survey of 2000 South Carolina households randomly selected from a list provided by a professional market research firm. The survey generated a 10.2 percent response rate, but after deleting

[1] *Upstate:* Abbeville, Anderson, Cherokee, Chester, Edgefield, Greenville, Greenwood, Laurens, McCormick, Oconee, Pickens, Saluda, Spartanburg, Union, York. *Midlands:* Aiken, Bamberg, Barnwell, Calhoun, Chesterfield, Darlington, Fairfield, Kershaw, Lancaster, Lee, Lexington, Marlboro, Newberry, Orangeburg, Richland, Sumter. *Low Country:* Allendale, Beaufort, Berkeley, Charleston, Clarendon, Colleton, Dillon, Dorchester, Florence, Georgetown, Hampton, Horry, Jasper, Marion, Williamsburg.