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What We Know and Don't Know About the Economic Development Benefits of Local Food Systems

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The potential economic development benefits generated through local food systems are diverse. Numerous claims have been made concerning their possible benefits. However, many of these claims have not been tested by social science research. Of special importance to public and private decision makers is how local food systems (LFS) contribute to the development of the local entrepreneurial environment, economic clusters, regional branding opportunities, social capital, and local quality of life factors.

Economic Clusters

Research has shown that a region's smaller agricultural producers do benefit from LFS by an expanded demand for their products. Moreover, those who supply production inputs-including labor-and other industries that complement the food system have also been shown to benefit from increased demand for their products and services. These benefits can arise through two primary channels. The first is through supply-chain linkages where the various components of local economies are impacted by LFS sales. The impacts of such linkages have been well documented, especially for farmers' markets, but also for food hubs and farm-to-school efforts. In this regard, the general conclusion among the better studies is that the impact of LFS on local employment and income is positive and growing, but small (Boys and Hughes, 2013). The second channel can be through linkages between businesses either directly or through an intermediary—such as a business-supported workforce training program at a local community college. Especially the latter channel can reduce the cost of doing business through what economists term "agglomeration economies," that is, general reductions in costs because business activity is grouped or clustered in a particular area.

Economic clusters are "geographic concentrations of interconnected companies, specialized suppliers, service providers, firms in related industries, and associated institutions in a particular field that compete but also cooperate in producing similar products" (Porter, 2000). Being located near one another offers clustered firms possible productivity advantages in economics of scale (reducing cost per unit of output by becoming larger), economics of scope (producing a broader mix of products), a reduction in distance-dependent costs, and other positive opportunities.

The tendency of LFSs to cluster has received little research attention. Other studies have, however, indicated the benefits of economic clustering, in general, for rural areas. Gabe (2005) found that rural areas possessing economic agglomerations had higher rates of investment than their rural counterparts. Lambert, McNamara, and Garrett (2006) found that food manufacturing non-metro counties near urban centers have an advantage due to the spillover of agglomeration economies and transportation linkages from the urban centers. Barkley and Henry (1997) argued that rural communities with established industry agglomeration may want to build on their clusters and that rural communities with small industry clusters may opt to pursue a cluster promotion strategy. But rural communities with no existing, distinct cluster are unlikely to be successful in pursuing a cluster-based economic growth strategy.

Economic clusters may be generated due to independent co-location decisions of an industry's stakeholders or through intentional firm recruitment efforts by a region's

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leadership. To the extent that LFS clustering may occur, are the clusters formed by "blind" market forces or intentional policy designs? Do the origins matter to the type and extent of positive effects generated by the cluster? Once again, the research is very limited although a study of local food production in England (Ilbery et al., 2006) found that LFSs tended to cluster proximate to higher-income, urbanized areas; certain tourist attractions; small landholdings; and certain types of agriculture. Given that these limited results generalize to other areas—itself an issue greatly in need of additional research—to what extent do the benefits of clustering dissipate with distance from an urban setting?

Our understanding of the mechanisms by which LFS growth occurs is also incomplete. Does the development of one successful marketing channel—for example, farmers' markets-foster the development of other marketing channels-for example, Community Supported Agriculture arrangements? Or, do channel alternatives develop independently? Does the presence of a farmers' market lead to the establishment of additional farmers' markets because of knowledge spillovers—for example, my new farmers' market is better run because I learned from a nearby, established market—or other factors? And, if so, is the supply and demand of LFS products sufficient to allow all to thrive? The early research on this latter point is not encouraging and has found examples where new marketing outlets may cannibalize older outlets through competition for customers or vendors (Lohr and Diamond, 2011; and Zezima, 2011). Spatial econometric analysis—statistical analysis that accounts for the effect of physical proximity between observations—and case studies should throw additional light on the degree and nature of LFS clusters.

Social Capital

Social capital can be defined as connections or networks among people and institutions—such as governments and nonprofits—and the formal and informal accepted social norms and values under which these connections operate (Westlund and Adam, 2010). Social capital is a key element in the success of an LFS (Boys and Hughes, 2013; Brasier et al., 2007; and Korsching and Allen, 2004) in particular because networks can provide critical market information to LFS firms (Kirzner, 1997). More generally, meta-analysis where statistics are employed to see where studies of a particular topic tend to agree or disagree—of 21 studies by Westlund and Adam indicates that social capital is often important for the growth of individual businesses, but that impacts on regional economic growth are unclear. Arguably, however, appropriate forms of social capital are important elements in economic development through information exchanges as part of cluster formation, for example (Rosenfeld, 1997). The possible impact of social capital that results from the development of LFSs on broader community attributes has not been examined. That is, we don't know whether LFSgenerated social capital is in support of, a detriment to, or has no impact on local economic growth or community development. Given that research indicates the types of social capital are important in terms of economic growth, do LFSs tend to generate bonding social capital—strong ties between like-minded people and organizations—which often correlates with a lack of growth? Or, do LFSs tend to generate other forms of social capital, such as bridging social capital—linkages of a horizontal nature between groups with differing backgrounds and usually varying strengths or abilities—or linking social capital—relationships with people or organizations with political

or financial power—which are viewed as especially advantageous for more disadvantaged groups? In general, the impacts of the latter two forms of social capital have been seen as more positive for regional economic growth and community development (Sabatini, 2008), especially in rural areas (Atterton et al., 2011).

Given the difficulty of accurately measuring the effect of social capital on economic growth—for example, accounting for informal ties in addition to formal ties such as organizational membership—this remains an area for future work. Case-study-based surveys may be required to further tease out the effects of LFSs on local social capital with any resulting impacts on economic growth and community development.

Quality of Life

Interest in local foods is becoming increasingly engrained in lifestyle choices. Builders are integrating local food production into new housing developments. Cities are integrating community gardens into established housing communities. Farmers' markets are intentionally established in urban food deserts.

Florida (2002) argues that the factors determining economic growth of regions have radically changed. As a result, he contends that "the new economy" has radically altered the way in which places compete. He argues that rapidly mobilizing talented individuals based on key resources is a means of turning innovations into new commercial products and businesses and, ultimately, regional growth. Talent is attracted by qualityof-life factors such as local amenities, lifestyles, and the natural environment. Glaeser (2011) persuasively shows that the Florida model is simplistic in that higher wages, cheaper housing, and a pleasant climate have been at least as important to local economic growth as "controllable" quality-of-life factors.

But given that quality-of-life factors are at least somewhat important, to what degree does or could a welldeveloped LFS play in enhancing the local quality of life and, hence, play a role in attracting place-oriented workers? While econometric—that is, statistical analysis—approaches may shed light on this topic, surveybased case studies of places with relatively strong LFSs could also shed additional light on this topic. In this respect, research could center on to what degree do LFSs enhance local quality of life, and to what degree is regional economic growth influenced by LFS-based local quality of life.

Business Development

LFSs foster business development by either encouraging the establishment of new businesses or by adopting new marketing and business strategies among existing businesses.

LFSs and Entrepreneurism

Although agriculture has been ignored in most entrepreneurial studies and datasets (Alsos et al., 2011), several authors have argued that LFSs contribute to the local entrepreneurial spirit (Lyson, 2004; and Lyson, Gillespie, and Hilchey, 1995). Despite the emphasis on entrepreneurial development, the typical small business owner does not fit the role of an entrepreneur (Hamilton, 2000; Walker and Brown, 2004; and Hurst and Pugsley, 2011). That is, the majority of small business owners are non-innovators who emphasize nonmonetary goals—such as "being your own boss"—as opposed to the growth-oriented innovators found entrepreneurial-based growth theories. Given this background, to what degree are LFS firms true entrepreneurs in the Schumpeterian sense—that is, they introduce a new good or service, open a new market, introduce a new production process, develop a new source of input supply, or develop a new way of organizing

a business—versus being a typical small business owner? Assuming that LFS providers do have a tendency toward innovation, to what degree do their innovations spread in the local economy and to what degree does their innovative activity contribute to the development of a local entrepreneurial spirit? Once again, a set of case studies could be used to help provide answers to these questions under a variety of settings.

Arguably many entities involved in LFSs can be considered social entrepreneurs, which are profit or nonprofit organizations seeking to solve societal problems and, thereby, create social value (Lyons, 2014). To what degree is social entrepreneurism warranted as a component of an LFS, and to what degree do they compete with or possibly supplant local profitmaking enterprises that serve a similar role? For example, to what degree would a local, nonprofit-based food hub compete with a profit-making wholesaler who seeks to play a major role in the LFS? More to the point, to what degree do LFS-based social entrepreneurs contribute to the general, local social well-being?

LFS as a Marketing Strategy

Businesses that are not part of the traditional local foods system are starting to make substantial investments in local food markets. Angel and other investment funds such as Foodshed Investors —as SlowMoney NYC in the New York City area-and Sustainable Local Food Investment Group in the Chicago area are emerging as explicitly focused on local food businesses. Innovative builders are now incorporating everything from community gardens to whole working farms including livestock into subdivision development projects. In the United States, it is estimated that there are already more than 200 housing developments with an agricultural component (Harvest Public Media, 2013). Many restaurants,

food manufacturers, and retailers, are also intentionally increasing their procurement of local food products. Wal-Mart, for example, one of the world's most globalized retailers, has committed to increase its U.S. purchases of locally sourced produce to 9% of the category's sales by 2015. To the extent that these strategies induce higher consumer willingness to pay for these products, in aggregate these firm-level strategies can contribute to a region's economic growth.

The type and extent of commitments that firms outside the traditional communities are making to LFSs suggest they perceive strong market signals that consumer interest in local foods are expected to continue for some time. Many questions remain, however, about use of an LFS as a marketing strategy for conventional agribusiness firms. To what extent does a firm's claimed connection to an LFS impact consumer demand for their product? Are there specific segments of the agribusiness production and marketing system—such as supermarkets or restaurants-where this strategy would be particularly effective? What marketing tactics lead to perceptions of "localwashing"-where non-local products are promoted as being local-and what are the impacts of this on a firm or its industry? Most important, from our perspective, is how do such firmbased marketing strategies impact the contribution of an LFS to a local economy? In particular, how pervasive is localwashing becoming and what is the negative impact of localwashing on the growth and contribution of an LFS? Demand analysis of firms that are employing local foods as promotional and marketing tools would help shed light on such issues.

Regional Branding

Regional branding programs promote the purchase of farm or valueadded products from a particular region. These programs vary in their geographic scope; while many are dedicated to promoting products from a particular state, others are focused on within-state or acrossstate regions. The audiences for these campaigns also differ. While some programs encourage consumers to substitute local products for those imported into the region, others aim to foster demand for homegrown products among foodservice operations, food retailers, institutions—such as schools or hospitals—or manufacturers either within or outside the local region. At present, almost every state and more than 75 sub- and inter-state regions have regional branding programs (FoodRoutes, 2015).

Investment in regional branding programs and their assessed effectiveness have been found to vary by location and across time (Govindasamy et al., 2004; Carpio and Isengildina-Massa, 2010; and Nganje, Hughner, and Lee, 2011). Due to differences in scope and analytical approaches, it is not possible to directly compare the results of these findings. While initiatives that lead to more demand for value-added products or sales outside of a region are likely to generate a larger economic impact, it is not clear which program components best achieve these outcomes. For example, are promotional campaigns oriented toward local households more effective in generating economic growth than efforts aimed at increasing sales to large institutional buyers? Further understanding of the extent to which successful program components can and should be tailored before program adoption in other settings is needed.

Perhaps more fundamentally, however, is the uncertainty of whether all areas are truly good candidates for regional branding campaigns, and whether other attributes contribute to the success of such efforts. Quantifying the impact of efforts that partner regional food-branding campaigns with other general or industry "buy

local" initiatives is needed. Similarly, interactions between "buy local agriculture" programs that cover the same region are in need of assessment. Products from Page County in Virginia, for example, could be promoted through a chamber of commerce "Page County Grown" initiative, through the Virginia Cooperative Extension Based "Shenandoah Valley Buy Fresh, Buy Local" program, or through the State Department of Agriculture's "Virginia Grown" for raw or "Virginia's Finest" for valueadded food promotion programs. The point of consumer saturation with regional branding campaigns, and the extent to which there is "cannibalism" in terms of the effectiveness of geographically overlapping branding campaigns, should be explored. Once again, spatial-based econometric analysis-statistical analysis that accounts for the effect of physical proximity between observations—and case study analysis would help shed light on this set of issues.

LFS and the Impacts of "Beggarthy-Neighbor" Policies

Implicit in the intent of regional branding programs is to increase consumption of local products at the expense of those from outside the region. As raw food products are frequently also sourced from other regions, successful branding programs may inadvertently economically injure agriculture production in these other areas. In international economics settings, through "beggarthy-neighbor" policies, such actions can result in retaliation by the injured regions that ultimately may lead to everyone being worse off. In this context, as one region promotes its LFSs, other areas may retaliate by promoting their own LFSs and the result may be a decline in regional exports for all.

While studies have found value in inter-industry advertising coordination (Alston, Freebairn, and James, 2001) and interregional retail-firm

recruitment in small or isolated rural areas (Thilmany et al., 2005), to date there has been no research on this issue as it directly applies to LFSs. Insight is needed as to when it is more effective to reach external consumers through "local" branding versus coordinating a region's branding across localities or industries and commodities. This may be particularly true for value-added, processed goods that are more easily sold to non-local markets. Importantly, as well, aggregate-level questions concerning the extent to which LFS-based regional branding strategies lead to an inefficient geographical allocation of resources need to be explored. Urban, suburban, or less-isolated rural areas-all with access to large retail markets-may also take advantage of more rural areas in this regard. Interregional trade models which attempt to explain trade between areas based on area supply and demand, and more general tools of retail analysis, could help evaluate whether this possible issue is indeed a problem.

Next Steps

It is clear that the relationship between LFSs and various aspects of community and economic development is a fruitful area for policy-relevant research. While we know that LFSs currently have real yet small economic impacts in terms of supplychain linkages, other benefits-such as cluster development—have only been lightly touched on or not examined at all, such as in the case of social capital, quality of life, and the various "other" business impacts. Understanding the role that local food systems can potentially play in a local economy, with any degree of confidence, will also need to be tailored to a particular region. For example, would conclusions hold in all types of communities?

Such issues are important because communities often consider making investments in an LFS infrastructure, such as building a shared-use kitchen facility, or must consider changes in local and regional policies, such as allowing food truck sales locally. In making such decisions, estimates of the full local impact are very important. However, other, more indirectly generated benefits could also accrue to local communities with the development of an LFS.

For More Information

- Alsos, G.A., S. Carter, E. Ljunggren, and F. Welter. 2011. "Introduction: Researching Entrepreneurship in Agriculture and Rural Development." in G.A. Alsos, S. Carter, E. Ljunggren, and F. Welter eds. *The Handbook of Research on Entrepreneurship in Agriculture and Rural Development.*" Northampton, Mass: Edward Elgar, Chapter 1.
- Alston, J.M., J.W. Freebairn, and J.S. James. 2001. "Beggar-thy-Neighbor Advertising: Theory and Application to Generic Commodity Promotion Programs." *American Journal of Agricultural Economics* 83(4):888-902.
- Atterton, J., R. Newberry, G. Bosworth, and A. Affleck. 2011. "Rural Enterprise and Neo-Endogenous Development." in G.A. Alsos, S. Carter, E. Ljunggren, and F. Welter eds. *The Handbook of Research on Entrepreneurship in Agriculture and Rural Development.*" Northampton, Mass: Edward Elgar, Chapter 15.
- Barkley, D.L., and M.S. Henry (1997). "Rural Industrial Development: To Cluster or Not to Cluster?" Applied Economic Perspective and Policy (formerly Review of Agricultural Economics) 19(2):308-325.

- Brasier, K., S. Goetz, L. Smith, M. Ames, J. Green, T. Kelsey, A. Rangarajan, and W. Whitmer. 2007. "Small Farm Clusters and Pathways to Rural Community Sustainability." *Journal of the Community Development Society* 38(3):8-22.
- Boys, K., and D.W. Hughes. 2013. "A Regional Economics Based Research Agenda for Local Food Systems." Journal of Agriculture, Food Systems, and Community Development 3(4):1-6.
- Carpio, C.E., and O. Isengildina-Massa. 2010. "To Fund or Not to Fund: Assessment of the Potential Impact of a Regional Promotion Campaign." *Journal of Agri*cultural and Resource Economics 35(2):245-260.
- Florida, R. 2002. The Rise of the Creative Class: And How It's Transforming Work, Leisure and Everyday Life. New York: Basic Books.
- FoodRoutes. 2015. FoodRoutes Network—Buy Fresh, Buy Local. Available online: http://foodroutes. org/buy-fresh-buy-local-program/ chapter-directory/
- Gabe, T.M. 2005. "Industry Agglomeration and Investment in Rural Businesses." *Review of Agricultural Economics* 27(1):89-103.
- Glaeser, E. 2011. Triumph of the City: How our Greatest Invention Makes Us Richer, Smarter, Greener, Healthier, and Happier. New York: Penguin Books.
- Govindasamy, R., B. Schilling, K. Sullivan, C. Turvey, L. Brown, and V. Puduri. 2004. Returns to the Jersey Fresh Promotional Program: The Impacts of Promotional Expenditures on Farm Cash Receipts in New Jersey. Food Policy Institute, RR=0404-006, Rutgers University, New Brunswick.

- Hamilton, B. 2000. "Does Entrepreneurship Pay? An Empirical Analysis of the Returns to Self-Employment." *Journal of Political Economy* 108(3):604-631.
- Harvest Public Media. 2013. Forget the Golf Course, Subdivisions Built Around Farms. Available online: http://harvestpublicmedia.org/article/forget-golf-course-subdivisions-build-around-farms
- Hurst, B., and B.W. Pugsley. 2011. "What Do Small Businesses Do?" Working paper 17041, National Bureau of Economic Research.
- Ilbery, B., D. Watts, S. Simpson, A. Gilg, and J. Little. 2006. "Mapping Local Foods: Evidence from Two English Regions." *British Food Journal 108*(3):213-225.
- Lambert, D.M., K.T. McNamara, and M.I. Garrett. 2006. "Food Industry Investment Flows: Implications for Rural Development." *Review of Regional Studies* 26(2):140-162.
- Lohr, L., and A. Diamond. 2011. "Trade Zones for Farmers' Markets: Spatial Relationships." Paper presented at the annual meeting of the American Agricultural and Applied Economics Association, Pittsburgh, Pa, 24-26 July.
- Kirzner, I.M. 1997. "Entrepreneurial Discovery and the Competitive Market Process: An Austrian Approach." *Journal of Economic Literature* XXXV (March):60-85.
- Korsching, P.F., and J.C. Allen. 2004. "Local Entrepreneurship: A Development Model Based on Community Interaction Field Theory." Journal of the Community Development Society 35(1):25-43.
- Lyons, T. 2014. "Food Security, Entrepreneurship, and Value Added." Presentation at the 16th Annual National Value-Added Agriculture Conference. Baltimore, Md., 13-15 May.

- Lyson, T.A., G.W. Gillespie Jr., and D. Hilchey. 1995. "Farmers' Markets and the Local Community: Bridging the Formal and Informal Economy." *American Journal of Alternative Agriculture* 10:108-113.
- Lyson, T.A. 2004. Civic Agriculture: Reconnecting Farm, Food, and Community. Medford, Mass.: Tufts University Press.
- Nganje, W.E., R.S. Hughner, and N.E. Lee. 2011. "State-Branded Programs and Consumer Preference for Locally Grown Produce." *Agricultural and Resource Economics Review* 40(1):20-32.
- Page County Grown. 2015. Page County Grown From the Heart of the Shenandoah Valley. Page County Grown Board. Available online: http://pagecountygrown. com/
- Porter, M.E. 2000. "Location, Competition, and Economic Development: Local Clusters in a Global Economy." *Economic Development Quarterly* 14(1):15-34.
- Rosenfeld, S.A. 1997. "Bringing Business Clusters into the Mainstream of Economic Development." *European Planning Studies* 5(1):3-23.
- Sabatini, F. 2008. "Social Capital and the Quality of Economic Development." *Kyklos* 61(3):466-499.

- Shenandoah Valley, Buy Fresh, Buy Local. 2015. Your Guide to the Local Foods & Farms of the Shenandoah Valley. Virginia Cooperative Extension Service. Available online: http://buylocalshenvalley.org/
- SlowMoney NYC. 2015. Foodshed Investors NY. New York City Area. Available online: http://slowmoneynyc.org/nyc-lion.html
- Sustainable Local Food Investment Group. 2015. Chicago Metropolitan Area. Available online: http:// www.slofig.com/
- Thilmany, D., N. McKenney, D. Mushinski, and S. Weiler. 2005. "Beggar-thy-Neighbor Economic Development: A Note on the Effect of Geographic Interdependencies in Rural Retail Markets." *The Annals of Regional Science* 39(3):593-605.
- Virginia's Finest Specialty Foods and Beverages. 2015. Virginia's Finest Speciality Foods and Beverages Virginia Department of Agriculture and Consumer Services. Available online: http://www.vafinest.com/
- Virginia Grown. 2015. Virginia Grown. Virginia Department of Agriculture and Consumer Services. Available online: http://www.vdacs.virginia.gov/vagrown/

- Walker, E., and A. Brown. 2004. "What Success Factors are Important to Small Business Owners?" International Small Business Journal 22(6):577-594.
- Westlund, H., and F. Adam. 2010. "Social Capital and Economic Performance: A Meta-Analysis of 65 Studies." *European Planning Studies* 18(6):893-919.
- Zezima, K. 2011, August 20 "As Farmers' Markets Go Mainstream, Some Fear a Glut." *New York Times*, p. A12.

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