



An Annotated Bibliography of Publications and Resources on Food Hubs and Values-Based Supply Chains

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April 9, 2012

Compiled for *Know Your Farmer/Know Your Food: A California Project*

Gail Feenstra, David Visher, and Tracy Lerman

UC SAREP/ASI

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Abatekassa, Getachew & Peterson, H. Christopher. (2011). Market Access for Local Food through the Conventional Food Supply Chain. *International Food and Agribusiness Management Review*, 14(1): 63-82.

Abstract: The paper examines relationships and linkages between the conventional supply chain actors (wholesalers and retailers) and local food producers based on a study conducted in Southeast Michigan. A case study approach was employed to examine chain actors' operations and to explore their roles, experiences and perceptions about local foods. Semi-structured interviews were conducted with the owners and managers of eleven retailers and six wholesalers. The study found differences in local food perceptions, buying experiences and perceived benefits and risks associated with local food sourcing activities. The study also identified some competition between local independent food retailers and alternative market outlets. The major implication of the findings is that producers need to provide additional market services and develop trust-based relationships with their buyers to create better market access for local foods.

Barham, James. (2011a). *Regional Food Hubs: Understanding the scope and scale of food hub operations*. Washington, DC: USDA AMS.

Summary: Power Point presentation by Jim Barham at USDA Know Your Farmer Know Your Food. Provides working definition of food hubs, information on USDA work on food hub to date, data on food hubs collected from national survey, including how they are financed, where they are located, how they are managed what they sell, etc.

Barham, James. (2011b). *Food Hub Master List*. Washington, DC: USDA AMS.

Summary: Comprehensive list of all food hubs, public markets, food hubs in development, potential food hubs, and virtual food hubs, and key characteristics describing each one.

Block, Daniel, Thompson, Michael, Euken, Jill, Liquori, Toni, Fear, Frank & Baldwin, Sherill. (2008). Engagement for transformation: Value webs for local food system development. *Agriculture and Human Values*, 25(3): 379-388.

Summary: This article makes the claim that the values-web conceptual framework for understanding of and applying to food systems work involving community-university partnership. The authors start off by describing the term "values-web," noting the difference between values in the web and values of the web. In the web are credence attributes and of the web are benefits gained collectively by web participants. They also identified trust and quality as essential attributes that must extend up and down the chain. They then examined 4 projects involving community and higher education partnerships and note how each project works to develop values in and of the web. The authors conclude that the values web

framework applies not just to the food systems goals and outcomes of the project itself, but also in how the project partners work with each other. They highlighted the importance of universities collaborating with partners in non-hierarchical ways, focusing on democratizing research and engaging with the community rather than one-way communications. Building trust is critical, and working in local, place-based contexts facilitates trust building.

Bloom, J. Dara & Hinrichs, C. Clare. (2010). Moving local food through conventional food system infrastructure: Value chain framework comparisons and insights. *Renewable Agriculture and Food Systems*, 26(1): 13-23.

Summary from abstract: This paper uses a value chain model (based on business management studies and adapted to the context of agrifood enterprises) as a framework for investigating how actors who are accustomed to working within the logic of the traditional produce industry incorporate local food into their overall operations. Using a qualitative comparative case study approach, the paper examines how features of the value chain structure and governance mechanisms operate in two food distribution networks that are transitioning toward localization in a rural and an urban region of Pennsylvania, respectively. Case study analysis focuses on conventional wholesale produce distributors as the link between local producers and local buyers. Interviews with the distributors, producers and buyers reveal the sources and outcomes of challenges affecting how the distributors organize their purchasing and selling of local produce. Network practices, in turn, have equity implications as distributors struggle to pay producers enough to maintain their economic viability, while still making local produce accessible to a wide range of consumers.

Bloom, J. Dara & Hinrichs, C. Clare. (2011). Informal and Formal Mechanisms of Coordination in Hybrid Food Value Chains *Journal of Agriculture, Food Systems, and Community Development*, 1(4).

Summary from abstract: This qualitative study examines three hybrid food value chains that revolve around conventional, wholesale produce distributors located in rural, urban, and exurban regions of Pennsylvania. Theories of local and social embeddedness inform the analysis of how participants negotiate and coordinate their interactions through informal mechanisms, such as their social relationships, and formal mechanisms, such as contracts and labels. Case study findings reveal distinctions between the rural and exurban cases on the one hand, where participants combined both personal and market-based mechanisms to coordinate their relationships, and the urban case, where the sale of specialty products to a niche market both fostered and inhibited the use of more formal mechanisms of coordination. In all cases, commercial conventions tended to take precedence over social relationships, despite the role that personal trust may have played. These findings suggest that when value chains incorporate conventionally oriented businesses, they would benefit from more deliberate commitment to non-economic goals in order to establish successful mechanisms of inter-organizational coordination.

Boule, Danielle, Hubert, George, Jensen, Anna, Kull, Alannah, Van Soelen Kim, Julia, Marshall, Courtney, Meagher, Kelsey & Rittenhouse, Thea (2011). *Context Matters: Visioning a Food Hub in Yolo and Solano Counties*. Davis: UC Davis.

Overview from report: This report was prepared by a team of students at UC Davis for the Yolo Ag and Food Alliance (AFA). The objective was to examine the plausibility of creating a food hub in Yolo and Solano Counties. To achieve this, the UC Davis research team explored recent trends in food hubs across the country and conducted a food system assessment of the two counties. The food system assessment tracks historical trends and

data in Yolo and Solano Counties for five sectors of the food system: production, processing, distribution, retail, and consumption. By analyzing these sectors, the report provides a context to better understand the viability of a possible food hub in the region and includes exercises and recommendations to help guide the AFA through a planning process.

Bregendahl, Corry & Flora, Cornelia Butler. (2006). *The Role of Collaborative Community Supported Agriculture: Lessons from Iowa*. Ames: North Central Regional Center for Rural Development, Iowa State University.

Summary from report: The aim of this research project was to understand the role collaborative Community Supported Agriculture (cCSA) plays in community and economic development in Iowa. We found that cCSA serves as a business incubator for new growers and helps existing growers expand and diversify their operations. We also found that this kind of community agriculture offers workforce development opportunities, and provides a host of other benefits to Iowa's communities.

California Food Hub Network (2010). *Notes from the First Meeting of the California Food Hub Network*. First Meeting of the California Food Hub Network.

Summary: Notes from the first CA Regional Food Hub Network Convening - August 2010. States purpose in forming a regional food hub network. Asks questions about goals, needs, barriers, and level of commitment/investment amongst meeting participants. Identifies next steps.

Cantrell, Patty. (2009). *Sysco's Journey from Supply Chain to Value Chain: Results and Lessons Learned from the 2008 National Good Food Network/Sysco Corporation Pilot Project to Source and Sell Good Food*. Arlington: Wallace Center at Winrock International.

Summary: Case study/account of Sysco's 2008 beginning work to develop food value chains. This NGFN/Sysco Partnership case study provides the operational considerations, early results, lessons learned and next stage planning involved in Sysco's ongoing corporate journey from supply chain to value chain. Pilot projects for Sysco's value chain work was in Grand Rapids, MI (covering western Michigan and northern Indiana) and Kansas City, MO (covering greater KC metro area).

Chef's Collaborative. (2008). *Chef's Collaborative Regional Food Infrastructure Project*. Boston: Chef's Collaborative.

Summary: Summary of research conducted to assess the performance and success of distribution models for moving food in a local network. Research included 50+ interviews with chefs, farmers, and distributors about what they think works best for moving local food effectively and what they wished worked better. Geographic focus is on large urban markets with partial year growing seasons and sought out examples of models that deviated from conventional broadline distribution systems. Grouped alternative models into seven types: referral services, nonprofit brokers and distributors, public-private partnerships, cooperatives, farmers market hubs, values-driven enterprises and traditional distributors with an interest in supporting local, sustainable producers.

Cheng, Melanie & Seely, Kate. (2011). *Building Regional Produce Supply Chains: Helping Farms Access and Sell to Multiple Channels, Helping Large-Volume Buyers Access Regional Foods*. San Francisco: FarmsReach.

Summary: Report from the 2010 Regional Produce Supply Chain Convening, the goal of which was to collectively envision and design practical solutions to develop and support

local and regional food systems and to create efficient models for local/regional food distribution. Report outlines issues/barriers identified by Convening participants as well as opportunities for innovation, investment, and policy change. Report also outlines steps FarmsReach will take in addressing the most pressing obstacles.

Clancy, Kate & Ruhf, Kathy. (2010). *Report on Some Regional Values Chains in the Northeast*.

Summary: Report on Regional Values Chains in the Northeastern U.S. Surveyed 35 regional values chains and identifies their characteristics, from the perspective of the "driver" organization/business. Characteristics include size, gross sales, kind of "driver" organization, values used to differentiate product, etc. Includes glossary of definitions.

Cochran, Jim, Yee, Larry, Brown, Sandy, Brubaker, David, Nelson, Doug, Pendleton, Craig, Schmidt, Karen & Zajfen, Vanessa. (2010). *The Food Commons: Building a National Network of Localized Food Systems*.

Summary: Visionary document for the creation of an alternative, values-based, food system called The Food Commons. Land access, financing and marketing are included, respectively by a Land Trust, Bank, and Food Hub system.

Cohen, Nevin & Derryck, Dennis (2011). Corbin Hill Road Farm Share: A Hybrid Food Value Chain in Practice. *Journal of Agriculture, Food Systems, and Community Development*, 1(4).

Abstract: Food value chains consist of food producers, processors, third-party certifiers, distributors, and retailers working together to maximize the social and financial return on investment for all participants in the supply chain, including consumers. This paper presents a case study of Corbin Hill Road Farm Share, a newly created hybrid food value chain that engages nonprofit strategic partners to provide locally grown and affordable produce to low-income residents of New York City's South Bronx while also enabling Farm Share members to become equity owners of the farm over time. The case study shows that the involvement of community-based nonprofits is key to creating a food production and distribution system that engages a wide range of stakeholders, fosters shared governance and transparency, empowers consumers, and benefits regional farmers.

Community Alliance with Family Farmers. (2011). *Establishing an Aggregation & Marketing Center for California's North Coast*. Community Alliance with Family Farmers.

Summary: Funded by USDA Rural Development RBEG grant, this report presents a market analysis of the food system in California's four North Coast counties (Sonoma, Napa, Mendocino, and Lake), with the core aim of identifying opportunities to expand local markets for food producers. Also presents a feasibility study for an Aggregation and Marketing Center in this region.

*Conner, David S., Campbell-Arvai, Victoria & Hamm, Michael W. (2008). Value in the values: pasture-raised livestock products offer opportunities for reconnecting producers and consumers. *Renewable Agriculture and Food Systems*, 23(1): 62-69.

Abstract: Pasture-based livestock production holds promise in helping to reinvigorate small and mid-scale farming, as well as farm communities, across the United States. In this study, in-depth interviews of pasture-based livestock producers, meat processors and buyers were conducted to determine behaviors, attitudes and expectations with regard to pasture-based livestock production. In addition, consumers were polled to determine their attitudes with respect to how food animals are raised and treated. Results revealed many shared values

between those involved in raising, processing and distributing animal products, as well as consumers, indicating an opportunity for a 're-embedding' of livestock production based on these shared values. The concurrent development of both direct and extended markets, e.g. values-based value chains, is suggested as one way of addressing the difficulties faced by individual farmers in processing and distributing animal products with their provenance and underlying values intact.

Conner, David S., Nowak, Andrew, Berkenkamp, JoAnne, Feenstra, Gail W., Van Solen-Kim, Julia, Liquori, Toni & Hamm, Michael W. (2011). Value Chains for Sustainable Procurement in Large School Districts: Fostering Partnerships. *Journal of Agriculture, Food Systems, and Community Development*, 1(4).

Abstract: Values-based value chains and farm to school programs are two aspects of the alternative agri-food system that have received a great deal of attention recently from scholars and practitioners. This paper chronicles two separate pilot efforts to create value chains for mid-scale farms to supply large school districts' food-service operations with more healthful, local, and sustainably produced foods, using a modified farm to school model. Early farm to school efforts were mostly farm-direct, a model that poses difficulty for large districts, which often require some kind of intermediary to procure the volume and form of products required for the scale of their food-service operations. Value chains have the potential to address this issue, as part of a more broad-based sustainable school food procurement model that can meet the needs of large districts. The lessons learned about the various roles scholars and community partners might play in creating, sustaining, and monitoring performance of these value chains are highlighted.

Day-Farnsworth, Lindsey, McCown, Brent, Miller, Miller & Pfeiffer, Anne (2009). *Scaling Up: Meeting the Demand for Local Food*. Madison: University of Wisconsin.

Summary: To develop informed and appropriate business development strategies for Wisconsin farmers and other supply chain startups, the UW-Madison Center for Integrated Agricultural Systems (CIAS) and UW-Extension Agricultural Innovation Center studied and documented eleven models of regional food aggregation and distribution.

DeLuca, Eric. (2010, July-August). "Collaboration and Resilience: Food Co-ops and Regional Food System Development." *Cooperative Grocer*.

Summary: Food co-ops, food system leaders, food centers, and food systems researchers share ingredients of success in their efforts to cultivate a resilient food system.

Diamond, Adam & Barham, James. (2011). Money and Mission: Moving Food with Value and Values. *Journal of Agriculture, Food Systems, and Community Development*, 1(4).

Abstract: In response to low margins in traditional commodity markets and consumer demand for de-commodified food, food value chains have emerged in the last decade as strategies for differentiating farm products and opening new, more financially viable market channels for smaller farmers. These business networks incorporate strategic coordination between food producers, distributors, and sellers in pursuit of common financial and social goals. Our analysis of the aggregation, distribution and marketing functions of eight food value chains of diverse character across the United States reveals four summary findings that encapsulate the challenges and opportunities facing these business organizations: (1) private infrastructure investment should match the organizational stage of development and market capacities; (2) identity preservation is a critical market differentiation strategy; (3) informal

networks can be highly effective tools for coordinating the marketing efforts of diverse agricultural producers; and (4) nonprofits and cooperatives both can play key roles in value chain development, but should recognize their organizational competencies and limitations.

Diamond, A. & Barham, J. (2012). *Moving Food Along the Value Chain: Innovations in Regional Food Distribution*. Washington, DC: USDA AMS.

Summary: This report looks at eight food value chains and examines the aggregation, distribution and marketing of each, in order to glean practical lessons about how they operate, as well as challenges and opportunities. The report categorizes the values chains by the type of organization driving the distribution operation: retail-driven, nonprofit-driven, producer-driven, and consumer-drive. Four themes emerged from their case studies: 1) The level of investment in infrastructure should match the organization's stage of development and marketing capacities; 2) Value chain managers must ensure identity preservation from farm to market as a way to establish marketing claims and improve negotiating position with buyers; 3) Distribution entities using informal producer networks can adapt to the constantly shifting demands of diversified niche food markets; and 4) Non-profits and cooperatives can play key roles in value chain development but should recognize their organizational competencies and play to their strengths.

Dreier, Shonna & Taheri, Mino. (2008). *Innovative Models: Small Grower and Retailer Collaborations*. Arlington: Wallace Center at Winrock International.

Summary: Case study of Good Natured Family Farms, a cooperative of growers in Kansas, and their relationship with Balls Food Stores. Identifies Key Innovations of co-op, focusing on governance, decision-making, administration, processing, quality of product, efficiency, marketing, and consumer education, as well as challenges.

Dreier, Shonna & Taheri, Mino. (2009). *Innovative Models: Small Grower and Retailer Collaborations, Part B - Balls Food Stores Perspective*. Arlington: Wallace Center at Winrock International.

Summary: Follow up to Wallace case study of Good Natured Family Farms, a cooperative in Kansas that sells to Balls Food Stores (BFS) and was a catalyst in getting BFS to switch to more local and shorter supply chain purchases. This report is a case study of BFS and identifies key innovations in BFS' success in offering locally produced products and supporting local farmers.

Erlbaum, Julia, McManus, Karen & Nowak, Andrew. (2011). *Colorado Local Food Hubs for Farm to School Products: An Initial Feasibility Analysis of Local Food Hubs for Colorado Producers and Schools*. Colorado: Real Food Colorado: 1- 53.

Summary: Feasibility study assessing certain key barriers concerning infrastructure, processing and sourcing for Colorado farm to school (F^TS) programs and addressing key solutions. RFCO point out F^TS program creation and development often fall upon one individual to create and are restricted by school districts' limited resources. Establishes goal of achieving a system-based process that can support the integrity of F^TS programs, while ensuring continuation in F^TS ideology and the ability to continue to provide healthier and more nutritious food grown by local producers.

Feenstra, Gail, Allen, Patricia, Hardesty, Shermain D., Ohmart, Jeri & Perez, Jan. (2011). Using a Supply Chain Analysis to Assess the Sustainability of Farm to Institution Programs. *Journal of Agriculture, Food Systems, and Community Development*, 1(4).

Abstract: Interest in local and sustainable food among colleges and universities has risen considerably in the last decade. This study focuses on how to foster farm-to-institution programs by exploring barriers, opportunities, and potential solutions from different perspectives in the supply chain. We use a values-based supply chain approach to see what unique insights can be offered to people developing and maintaining these programs. Three research methods — a national survey of college students, a survey of institutional food service buyers in California, and in-depth interviews of people in the California distribution system, including farmers, distributors, and food service buyers — are used to collect data and perspectives from throughout the supply chain. Using the concepts from supply chain literature of product flows, financial flows, and information flows, we highlight key insights for various participants in the supply chain. Strengthening information flows and building relationships that allow all parties to build trust over time emerged as one of the most important elements in the success of these values-based supply chains. Educational institutions and the media can support these chains by becoming the vehicles for ongoing exchange of information among supply chain partners and the public.

Fisk, John & Barham, James. (2011). *Initial Findings from Food Hub National Survey*.

Summary: A few facts from the food hub survey that USDA's Jim Barham and Wallace Center's John Fisk conducted, including average number of employees (4 full-time, 3 part-time), gross annual sales (\$871,000), number of suppliers (40). Operators identify four needs that would further food hub development if met: start-up capital and seed funding, mobilize food hub "on the ground" pilot programs, develop communities of practices, support for partner organizations to develop case studies of innovative models.

Fitzgerald, Kate, Evans, Lucy & Daniel, Jessica. (2010). *The National Sustainable Agriculture Coalition's Guide to USDA Funding for Local and Regional Food Systems*. Washington, DC: The National Sustainable Agriculture Coalition.

Summary: This guide provides a general overview of the USDA's structure and continues with descriptions and details of fifteen grants and programs that are relevant to local and regional food systems development. Each program description also includes a case study of a real-world regional food system project that received program funding.

*Flaccavento, Anthony. (2009). *Healthy Food Systems: A Toolkit for Building Value Chains*. Appalachian Sustainable Development.

Summary from report: This toolkit is designed to help new and emerging healthy food system value chain efforts. While it draws heavily from the experience of Appalachian Sustainable Development, including particularly its Appalachian Harvest network, it also includes ideas, challenges and insights from other value chain and food system initiatives, both within Appalachia and other parts of the country. The toolkit is intended to be a hands-on resource which can help spur new thinking, help refine plans, and perhaps help guide implementation of new and emerging food system initiatives.

*Greenberg, Laurie. (2007). *Innovative Strategies for Meeting New Markets*. Northcountry Cooperative Development Fund.

Summary from report: The purpose of this exploratory study is to provide concrete tools and inspiration for producers and others who address the challenges inherent in scaling up agricultural production and expanding into new markets. This report provides a summary and analysis of the experiences of numerous producer cooperatives, individual producers

and buyers. Each of these groups has approached challenges in ways that have resulted in innovative businesses and infrastructure that are effective in meeting new markets.

Hand, Michael S. (2010, December 2010). "Local Food Supply Chains Use Diverse Business Models to Satisfy Demand." *Amber Waves*.

Summary from article: Case studies of mainstream and local food supply chains reveal the variety of ways that food products move from farms to consumers. Farms in local food supply chains maintain a diverse portfolio of products and market outlets, which may help defray large fixed costs across multiple revenue streams. Local food supply chains are more likely to provide consumers with detailed information about where and by whom products were produced.

Hardy, Connie & Holz-Clause, Mary. (2008). *Bridging the Gap: What does it take to bring small and medium-sized producers and retail and foodservice distributors together?* Ames: Leopold Center for Sustainable Agriculture, Iowa State University.

Summary: This report interviewed distributors in the region and asked them what their requirements and needs are in order to purchase from local and small-scale producers. Report also identifies a need for more aggregation points for producers.

Hawkes, Corinna. (2009). Identifying Innovative Interventions to Promote Healthy Eating Using Consumption-Oriented Food Supply Chain Analysis. *Journal of Hunger and Environmental Nutrition*, 4(3): 336-356.

Abstract: The mapping and analysis of supply chains is a technique increasingly used to address problems in the food system. Yet such supply chain management has not yet been applied as a means of encouraging healthier diets. Moreover, most policies recommended to promote healthy eating focus on the consumer end of the chain. This article proposes a consumption-oriented food supply chain analysis to identify the changes needed in the food supply chain to create a healthier food environment, measured in terms of food availability, prices, and marketing. Along with established forms of supply chain analysis, the method is informed by a historical overview of how food supply chains have changed over time. The method posits that the actors and actions in the chain are affected by organizational, financial, technological, and policy incentives and disincentives, which can in turn be levered for change. It presents a preliminary example of the supply of Coca-Cola beverages into school vending machines and identifies further potential applications. These include fruit and vegetable supply chains, local food chains, supply chains for health-promoting versions of food products, and identifying financial incentives in supply chains for healthier eating.

*Hoshide, Aaron. K. (2007). *Values-Based & Value-Added Value Chains in the Northeast, Upper Midwest, and Pacific Northwest*. Orono, ME: University of Maine.

Summary from report: This research component of the Ag of the Middle Project sought to 1) Identify more values-based value chains (VBVC's) in the Northeast, Upper Midwest, and Pacific Northwest in addition to the original thirteen VBVC case studies on the Ag of the Middle project website (AOTM, 2004); and 2) Determine value-added value chains that could evolve into VBVC's in each of these three geographic regions of the United States.

Jablonski, Becca B. R., Perez-Burgos, Javier & Gomez, Miguel I. (2011). Food Value Chain Development in Central New York: CNY Bounty. *Journal of Agriculture, Food Systems, and Community Development*, 1(4).

Abstract: In the past 10 years, demand for locally grown food has increased dramatically. Concomitantly, small, commercial farms have declined disproportionately to small and large farms. The decline may be due to the lack of appropriately scaled marketing and distribution resulting from changing markets. This article presents a case study of a component of a food value chain started in 2007, Central New York (CNY) Bounty. CNY Bounty markets and distributes products produced by 119 small, commercial farms and processors to individual households, restaurants, natural food stores, and universities. In the past four years, CNY Bounty has experienced mixed success in terms of its economic viability, which can offer some important lessons for practitioners and contributions for food value chain research.

Jarosz, Lucy. (2000). Understanding agri-food networks as social relations. *Agriculture and Human Values*, 17(3): 279-283.

Abstract: Actor network theory and supply chain management theory provide suggestive research directions for understanding regional agri-food networks. These theories claim that relationships based upon trust and cooperation are critical to the strength and vitality of the network. This means that exploring and detailing these relationships among the suppliers, producers, workers, processors, brokers, wholesalers, and retailers within specific regional geographies of these networks are critical for furthering cooperation and trust. Key areas of cooperation include resource sharing and apprenticeship programs. Employing food networks as a key unit of contextual analysis will deepen our understanding of how to enhance their resiliency and vibrancy. Important questions can be raised about the difference gender makes for farmers, brokers, entrepreneurs, and workers in local food networks.

King, Robert P., Hand, Michael S., DiGiacomo, Gigi, Clancy, Kate, Gomez, Miguel I., Hardesty, Shermain D., Lev, Larry & McLaughlin, Edward W. (2010). *Comparing the Structure, Size, and Performance of Local and Mainstream Food Supply Chains*. Washington, D.C.: USDA ERS.

Abstract: A series of coordinated case studies compares the structure, size, and performance of local food supply chains with those of mainstream supply chains. Interviews and site visits with farms and businesses, supplemented with secondary data, describe how food moves from farms to consumers in 15 food supply chains. Key comparisons between supply chains include the degree of product differentiation, diversification of marketing outlets, and information conveyed to consumers about product origin. The cases highlight differences in prices and the distribution of revenues among supply chain participants, local retention of wages and proprietor income, transportation fuel use, and social capital creation.

King, Robert P., Hand, Michael S., DiGiacomo, Gigi, Clancy, Kate, Gomez, Miguel I., Hardesty, Shermain D., Lev, Larry & McLaughlin, Edward W. (2010). *Lessons from Case Studies on Local Foods. Lessons from Case Studies on Local Foods Workshop*. University of Minnesota Minneapolis.

Summary: Four power point presentation summarizing results of 2010 ERS study, *Comparing the Structure, Size, and Performance of Local and Mainstream Food Supply Chains*, which compared mainstream and local food supply chains to understand barriers to growth of local foods, consequences, and roles of policies. Five case studies focus on beef in MN, blueberries in OR, leafy greens in CA, apples in NY, and milk in DC. Presentation delivered at Local Foods Workshop, October 2010, in Minneapolis, MN.

King, Robert P. & Venturini, Luciano (2005). *Demand for quality drives changes in food supply chains*. AIB-794. Washington, DC: USDA ERS.

Summary: This article was written with a grounding in supply chain management theory. It

argues that differentiated products, specifically high-value products, require a different model of supply chains. The focus here is less on social/cultural/environmental credence attributes, though organic is referenced a couple of times. The authors state that logistics and information sharing is more complex and difficult for high quality, differentiated products, especially the verification of credence attributes. Supply chain thinking encourages a systems-wide approach, focusing on flow across the chain and linkages that connect discrete processes. The authors identifies three types of flow (product, financial, and information) and four main characteristics of supply chain context (infrastructure, institutions, mass markets, and exchanges). They emphasize partnerships, information-sharing, equitable distribution of costs and returns, continuous flow of high quality, safe product adaptability and innovation, consumer demand, and emphasizing values. They also note that the design of supply chain differs depending on where value is created (at input, production, processing or retail level), but the mechanism preserving the differentiation is critical in all cases, and looks at four different examples. In examining linkages, they argue that linkages are more general across supply chains and can be divided into 3 categories: standards, markets, and organizational coordination mechanisms. Standards preserve product values throughout the supply chain, markets refer to the demand for a diversity of products differentiated with credence attributes, and organizational coordination mechanisms refer to coordinating logistics across the supply chain. The article concludes by saying that supply chains meeting the growing demand for high quality food must be based on sound design principles.

Lev, Larry & Stevenson, G. W. (2011). Acting Collectively to Develop Mid-Scale Food Value Chains. *Journal of Agriculture, Food Systems, and Community Development*, 1(4).

Abstract: This paper uses case studies of four innovative U.S. midscale food value chains to provide models of how midsized farms and ranches and associated processing, distribution, and retail businesses can prosper by acting collectively to construct a "third tier" in the U.S. agri-food system. Specifically we consider the importance of acting collectively at three distinct levels: horizontally among producers, vertically within food value chains, and horizontally across food value chains. These midscale food value chains represent strategic alliances among midsized farms and other agri-food enterprises that operate at regional levels, handle significant volumes of high-quality, differentiated food products, and distribute profit margins equitably among the strategic partners. From a market perspective, the key advantage of these food value chains is their ability to provide these high-quality, differentiated products that are not available through the mainstream commodity market.

Masi, Brad, Schaller, Leslie & Shuman, Michael H. (2010). *The 25% Shift: The Benefits of Food Localization for Northeast Ohio & How to Realize Them*.

Summary: Assessment of the benefits of and barriers to a 25% localization of food system in the 16 county Cleveland metropolitan region in Northeastern Ohio. Recommendations call for development of food hubs in region.

Matson, James (2011, May/June 2011). "Virtual Food Hubs Help Producers Tap Into Local Food Markets." *Rural Cooperatives*.

Summary: Profile of Lulu's local food, a business that developed software helping to facilitate five virtual food hubs (four in Virginia, one in Montana.)

Matson, James, Sullins, Martha & Cook, Chris. (2011, May/June 2011). "Keys to Success for Food Hubs." *Rural Cooperatives*.

Summary: Brief synopsis of barriers and opportunities for food hubs, excerpted from a larger report entitled "Food Hubs: Local Food Marketing Solution?" produced for the Virginia Foundation for Agriculture, Innovation and Rural Sustainability (VA FAIRS)

Melone, Brett, Cardenas, Eric, Cochran, James, Gross, Jennifer, Reinbold, Jonathan, Brenneis, Lisa, Sierra, Luis, Cech, Sharon & Zajfen, Vanessa. (2010). *California Network of Regional Food Hubs: A Vision Statement and Strategic Implementation Plan*. California: Regional Food Hub Advisory Council.

Summary from report: This paper outlines a vision and implementation plan for an improved regional wholesale marketing system that addresses the major barriers and risks that limit small family farmers' ability to bring good food to market and, in turn, provide consumers and communities with access to good food. The vision presented in this paper is of a new statewide organization that networks regional food aggregators and distributors into a system that expands marketing opportunities, reduces risk, and increases access to good food—a network of Regional Food Hubs.

National Good Food Network. (2009, June 11.) Aggregation/Distribution: Appalachian Sustainable Development. *NGFN Webinars*. National Good Food Network.

Summary from NGFN website: Anthony Flaccavento discusses the history and context of Appalachian Sustainable Development, focusing on Appalachian Harvest, a model of an "Entrepreneurial Non Profit", followed by Q&A.

National Good Food Network. (2009, Aug 20.) Innovations in Value Chain Infrastructure - Red Tomato. *NGFN Webinars*. National Good Food Network.

Summary from NGFN website: Red Tomato, a small nonprofit business in Massachusetts, is the marketing agent for a network of 40 mid-size farms in the Northeast. Red Tomato orchestrates their supply into more than 200 supermarkets in the greater Boston area, and as of recently, in the greater NYC metro area. To satisfy farms and deliver high-quality produce to distributors, Red Tomato's value-added strategy is to differentiate products, or decommodify them, through branding, local and farm identity, packaging, variety choice and diversity, eco certification, aggregation, and through intense focus on quality control to maximize flavor and freshness. Can Red Tomato build a regional supply chain that maintains the highest quality, and satisfies both farmers and consumers alike? This webinar explores this question as well as some of the contradictions in the system, such as seasonality vs. the year-round supply that is required to compete in the produce industry.

National Good Food Network. (2010, Sept 30.) The Business of Food Hubs: Planning Successful Regional Produce Aggregation Facilities *NGFN Webinars*. National Good Food Network.

Summary from NGFN website: This workshop-style webinar steps through two food hub feasibility studies to illustrate how you might go about assessing your potential food hub venture. These studies demonstrate two very different value chain environments, and come to some different conclusions.

National Good Food Network. (2010, Nov. 18.) Leveraging Existing Infrastructure for Significant Food System Change: Food Hubs, Regional Distribution, Farm to School, and more. *NGFN Webinars*. National Good Food Network.

Summary: In this webinar, Karen Karp provides illustrative examples of the ways in which Karp Resources has worked collaboratively with their non-profit, business, and government clients. By taking an inventory of their assets, and employing existing organizational and

physical resources and infrastructure, they have worked together to overcome some of the barriers to food system change at scale.

National Good Food Network. (2011, May 19.) Food Hubs: Viable Regional Distribution Solutions. *NGFN Webinars*. National Good Food Network.

Summary: This webinar provides a clear illustration of the variety of food hub models that exist, the outcomes they offer, and a sense of their viability, focusing on key elements of successful food hubs. We weave together the experiences of two innovative hubs (very different from one another) with the draft results of the first comprehensive US food hub study to tell this exciting story of how food hubs are a lynchpin in a regional food system.

Nicholson, Charles F., Gomez, Miguel I. & Gao, Oliver H. (2011). The costs of increased localization for a multiple-product food supply chain: Dairy in the United States. *Food Policy*, 36(2): 300-310.

Abstract: There is increased interest in greater localization of food supply chains but little evidence about the effects of localization on supply-chain costs. Assessing these effects is complex in multiple-product, multi-process supply chains such as the dairy industry. In this study, we develop a spatially-disaggregated trans-shipment model for the US dairy sector that minimizes total supply-chain costs, including assembly, processing, interplant transportation and final product distribution. We employ the cost-minimizing solution as benchmark to compare alternative scenarios of increased supply chain localization. Our results indicate: (1) short-run limits to increased localization, (2) modest impacts on overall supply-chain costs, and (3) large cost re-allocations across supply chain segments, regions and products. We find that increased localization reduces assembly costs while increase processing and distribution costs. Cost increases are larger in regions with smaller raw milk supplies and during the season when less raw milk is produced. Minimizing distances traveled by all dairy products results in tradeoffs across products in terms of cost and distance traveled. The relationship between increased localization and costs appears to be nonlinear.

O'Sullivan, Elizabeth Marjorie. (2011). *The Sacramento Region's Three Local Alternative Food Distributors: A Case Study of Factors Affecting Success*. Community Development Graduate Group. Davis: University of California Davis. Masters of Science: 97.

Abstract: The alternative food movement has primarily focused on increasing linkages between consumer and farmer through direct markets (farmers' markets, farmstands, and Community Supported Agriculture), but the vast majority of consumers continue to get their food through more conventional food pathways. This paper looks at the efforts of three local produce or alternative distributors, in Northern California, that sought to gain entry into these more conventional food pathway. Using interviews and participant observation this thesis focuses on developing a theoretical framework to understand the strengths and weaknesses of alternative distributors. The thesis also examines the potential challenges of simultaneously seeking to increase farmers' income and expand access to fresh, healthy, local, affordable foods in underserved areas. The thesis concludes with recommendations and suggestions for funders, and alternative distribution operators in three areas: 1) organizational structure; 2) communication and marketing; and 3) product attributes.

*Painter, Kathleen. (2007). *An Analysis of Food-Chain Demand for Differentiated Farm Commodities: Implications for the Farm Sector*. Pullman: Washington State University.

Summary: This report explores the trend toward alternative, higher quality food, including

organic, sustainably produced, local and regional origin, eco-labeled food, and Fair Trade products, as well as their potential implications for the farm sector. Literature on the organic marketplace will be examined as it relates to the market for differentiated farm products (DFP). In particular, this report examines how much consumers are willing to pay for DFP. Finally, the potential of marketing DFP for food service, restaurants, and farm-to-school programs will be addressed.

*Perrett, Allison S. (2007). *The Infrastructure of Food Procurement and Distribution: Implications for Farmers in Western North Carolina*. Appalachian Sustainable Agriculture Project.

Summary from report: This report examines the food industry in the United States and its implications for farmers in Western North Carolina who want to grow for and sell to local markets. The first part of the report examines the broad structure of food procurement and distribution. Subsequent sections examine procurement and distribution systems of particular commodity segments (produce, beef, and dairy) and the local infrastructure for direct marketing and food processing. In the context of Western North Carolina, this report focuses on the existing infrastructure of food procurement and distribution. Local patterns of distribution are presented as models and are based on current but not complete knowledge of existing systems with the potential to accommodate more local food with further development. Data on local systems are drawn from participant observation; from formal and informal interviews with local producers, processors, and wholesalers; and from local news outlets.

Perry, Jill & Franzblau, Scott. (2010). *Local Harvest: A Multifarm CSA*. USA: Author.

Summary: A how-to guide for farmers to help them set up a cooperative community supported agriculture program. Writers are farmers in the Local Harvest CSA in the Northeast. Book was written in cooperation with the Northeast Sustainable Agriculture Research and Education Program.

Pullman, Madeleine E. & Dillard, Jesse. (2010). Values based supply chain management and emergent organizational structures. *International Journal of Operations and Production Management*, 30(7): 744-771.

Summary: This article explores the supply chain management system of Country Natural Beef through the lens of structuration theory. Structuration theory explicitly recognizes the central responsibility of individual actors in constructing and reconstructing the organizational structures that in turn enable and constrain actions. This theory identifies 3 types of organizing structures: legitimation (norms and values), signification (rules), and domination (resources) and postulates that these structures work in concert with each other to articulate production processes and management systems that facilitate a successful natural beef supply chain. Values include measures of social (preservation of family ranching over many generations, individualism of farmers), environmental (land stewardship, biodiversity, water conservation), and economic (financial solvency, debt clearance, profitability) sustainability, rules include certification standards and production criteria, resources include infrastructures that facilitate members adherence to the rules.

Rozyne, Michael. (n.d.). *Distribution - The Forgotten P*. Belchertown: Northeast Sustainable Agriculture Working Group.

Summary: Whitepaper from NESAWG, written by Michael Rozyne from *Red Tomato* on the importance of not overemphasizing promotion over distribution for local and sustainably

produced foods.

Schmidt, Michele C., Kolodinsky, Jane M., DeSisto, Thomas. P. & Conte, Faye C. (2011). Increasing Farm Income and Local Food Access: A Case Study of Combined Storage, Marketing, and Distribution Strategies that Link Farmers to Markets. *Journal of Agriculture, Food Systems, and Community Development*, 1(4).

Summary from abstract: The Intervale Center, a nonprofit in Burlington, Vermont, partnered with small and midscale farmers to create the Intervale Food Hub, a collaborative of staff and farmers that aggregates, markets, and distributes local products through both a multifarm community supported agriculture (CSA) program and wholesale. Informed by surveys conducted to assess supply and demand in the region, the Food Hub provides businesses, restaurants, retailers, institutions, and individuals with year-round access to a diverse mix of fresh and value-added local food. The Intervale Center serves as a local distributor, purchasing products from up to 30 farmers and coordinating packaging, marketing, distribution, and business operations. Year-round, shared space is available to conduct business operations, including packaging and short-term storage. After three years of operation, the Food Hub has begun exploring ownership structures and geographic expansion. Using a participatory action research approach, this case study reviews the enterprise's development and outcomes. We provide a qualitative assessment of farmer and staff perceptions of successful practices and limitations, and conclude with recommendations for future research.

Selfa, Theresa. & Qazi, Joan. (2005). Place, Taste, or Face-to-Face? Understanding Producer–Consumer Networks in “Local” Food Systems in Washington State. *Agriculture and Human Values*, 22(4): 451-464.

Abstract: The study stems from a concern over the growing conflation of spatial and social ideas affiliated to local food systems. It is a similar concern to Hinrichs. Also seeks to highlight the fact that consumers and producers may understand and value local food systems for different reasons. The authors also seek to disrupt the simplified binary of local and global food systems. The authors use a case study approach with a particular lens focused on the challenges of creating local food systems in rural regions dominated by large-scale, export-oriented agriculture. The central question they seek to answer is: How are local agri-food networks socially and geographically defined? How do producers and consumers conceptualize and define local food systems? Is the choice to engage in a local food system a matter of proximity, quality, or desire to reconnect with farmers? The authors explore these questions by comparing Grant and Chelan Counties in rural Central Washington State to efforts in King County, where Seattle is located. There were some interesting findings in terms of appeal to different consumers based on space, urban versus rural, urban were more interested in local and organic, but were less motivated to make those purchases in order to support farmers and farmland. The authors suggest possibly that urban consumers are more interested in health, and environmental concerns. Authors also explore in a limited way, food security. The authors found that linkages between rural and urban places were crucial for the survival of alternative and small producers in the rural regions. Also found a variety of novel producer consumer relationships for food provisioning including; gleaning, employee perks, locally processed products labeled as such, farm to prison (tax deductions). Would also add that producers had perceptions of rural consumers as not being supportive of rural ag economies but in fact they proved to be more supportive than urban consumers. Additionally, consumers often attached "freshness" and

"quality" to their conceptions of local, and indicated that these two attributes were above all the most important.

Shuman, Michael, Barron, Alissa & Wasserman, Wendy. (2009). *Community Food Enterprise: Local Success in a Global Marketplace*. Arlington: Wallace Center at Winrock International.

Summary: Provides a detailed field report on the performance of 24 community food enterprises (CFEs), in the United States and international and shows that CFEs represent a huge diversity of legal forms, scales, activities, and designs. Four questions are addressed: 1) What strategies are community food enterprises deploying to heighten their competitiveness?; 2) What are the major challenges facing these enterprises and the ways they are overcoming those challenges?; 3) How well are these enterprises meeting the triple bottom lines of profit, people, and planet?; 4) To what extent are successful CFE models capable of being replicated worldwide?

*Slama, Jim, Nyquist, Kathy & Bucknum, Megan. (2010). *Local Food System Assessment for Northern Virginia*. Wallace Center at Winrock International, FamilyFarmed.org, and Triskeles Foundation.

Summary from report: This study was conducted by FamilyFarmed.org in collaboration with the Wallace Center at Winrock International through the support of the Triskeles Foundation. The study assesses the feasibility of building a successful fruit and vegetable aggregation and distribution system in the Northern Virginia agricultural crescent around Washington D.C. that contributes local and regional products into the existing wholesale commercial food system. The outcome is intended to inform local food system business development efforts in this region and other analogous markets.

Stevenson, G. W., Clancy, Kate, King, Robert P., Lev, Larry, Ostrom, Marcia & Smith, Stewart. (2011). Mid-Scale Food Value Chains: An Introduction. *Journal of Agriculture, Food Systems, and Community Development*, 1(4).

Abstract: This introductory discussion positions midscale food value chains as business models for a "third tier" in the U. S. food system, distinct from direct marketing to local consumers and global marketing of agricultural commodities. Responding to a growing demand for food that is differentiated from conventional products, midscale food value chains are developing strategic business alliances among small and medium sized farms or ranches and other agri-food enterprises. These supply chain alliances: (a) handle significant volumes of high-quality, differentiated food products; (b) operate effectively at regional, multistate levels; and (c) distribute profits equitably among the strategic partners. Value chain business models place emphasis on both the values associated with the food and the values associated with the business relationships within the food supply chain. Farmers and ranchers are treated as strategic partners, not as interchangeable input suppliers. Midscale food value chains employ two distinct, multi-farm marketing strategies: direct-to-wholesale and direct-to-consumer. Both marketing strategies are based on organizational structures that achieve the necessary volumes of high-quality, differentiated food by aggregating product from multiple farms or ranches. The introduction concludes with a discussion of the challenges associated with developing successful midscale food value chains and of needed research and public policies to support the growth of this third tier.

*Stevenson, G. W. & Pirog, Richard. (2008). Values-Based Supply Chains: Strategies for Agrifood Enterprises of the Middle. *Food and the Mid-Level Farm: Renewing an Agriculture of the Middle*. Thomas A Lyson, G W Stevenson and Rick Welsh (eds). Cambridge: The MIT Press: 119-143.

Summary from chapter: The center of the U.S. farming and food system is disappearing. Caught in the middle as the food system divides into global agricultural commodity marketing, on the one side, and direct marketing of food to local consumers, on the other, many traditional family farms/ranches/fisheries are increasingly at risk. Conventional food supply chains also squeeze out many regionally-based food processors, distributors, retailers and other food enterprises-of-the-middle. Restoring balance and integrity to these agri-food economic relationships will require changes in both private sector business models and public policy. This chapter explores one strategy for such new business models: values-based supply chains, or more succinctly, value chains. (Attached document is a summary of the chapter.)

Stevenson, Steve. (2009). *Values-based food supply chains: Executive Summary*. Center for Integrated Agricultural Systems.

Summary from Report: Case studies of four innovative enterprises—Country Natural Beef, CROPP/Organic Valley, Shepherd’s Grain and Red Tomato—offer models of how mid-sized farms and ranches can prosper through the construction of a “third tier” in the U.S. agri-food system. Known as “mid-scale food value chains,” these new business structures focus on strategic alliances that effectively operate at regional levels with significant volumes of high-quality, differentiated food products, and distribute profits equitably among the strategic partners.

Trauger, Amy. (2009). Social agency and networked spatial relations in sustainable agriculture. *Area*, 41(2): 117-128.

Summary: The author uses the framework of actor network theory (ANT) to understand how agency is created and articulated in two agricultural networks in Pennsylvania. ANT is a departure from structuration theory, which states that agency lies somewhere between the individual and social structure. ANT says that agency is an outcome of relational interactions within networks and collectives and cannot be bound by space. She uses three features of ANT to frame her discussion: agency, defined as culturally constructed process and an outcome of relations; non-human entities, which are culturally constructed as agents and ensure the durability and stability of the network; and structures, or networks of relations with spatial and historical reach. She uses participant observation for exploring her questions in the Women's Agricultural Network and the Tuscarora Organic Growers Cooperative (TOG). Relevant to supply chains, she identifies that, with the creation of TOG, the commodity chain becomes lengthened, although product is still marketed with values attributes - TOG gives growers agency through increase market access, whereas previously it did not exist, suggesting that agency is a positive outcome of producer collaboratives that aggregate product for greater market access. However networks can also reproduce some marginalizing structures they seek to break down. New networks will be hybrids of former networks of domination and identity politics and exclusion will still exist.

University of Missouri Extension. (n.d.) Regional Wholesaling of Vegetables: Wholesale Produce Cooperative Auctions.

Summary: Undated PowerPoint presentation from University of Missouri Extension about produce auctions in Missouri, including how they work, who attends them, prices typical garnered, benefits of participating in an auction, etc. Auctions identified as producer marketing cooperatives.

Zajfen, Vanessa. (2008). *Fresh Food Distribution Models for the Greater Los Angeles Region*. Paper 350. Los

Angeles: Occidental College.

Summary from report: In this report, the Center for Food and Justice (CFJ) assessed the opportunities and barriers to scaling up the distribution of locally grown fruits and vegetables in Southern California, focusing on four areas: Los Angeles County, Riverside and San Bernardino Counties (the Inland Empire), San Diego and Orange Counties, and Ventura County. The primary focus of this planning grant was to evaluate how large institutional clients could more readily access locally grown foods through traditional institutional procurement avenues such as large distribution firms. The evaluation was carried out by assessing the ability of current and future models of distribution to scale up and accommodate an increase in the volume of fresh produce distributed throughout the Southland.

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