

A Roadmap to Conducting Community Food Assessments: **Lessons Learned from the Northern Colorado Food Assessment**

<http://www.larimer.org/foodassessment/>

Section 1: Framing the Scope of the Assessment

A regional food system assessment should be very inclusive of all facets of the food system. Figure 1 shows a depiction of the food system, which is one way to outline the topics to be covered in a food assessment, from the key stakeholders who should be involved, to the data that could be collected for the baseline information on current levels and trends, to the issues that will be framed in discussions of strategic goals. Note that the bottom half of the figure contains the primary activities of the food system. These include natural resource endowments, but also purchased inputs, which include the local businesses where labor, production materials and other business services (credit, machinery operations) are procured. Production represents the operations of raw food production through farms, ranches and gardens. Outbound logistics are the activities associated with storing and distributing food, including processors, distributors, slaughterhouses and elevators. Marketing, sales and food outlets are all of the activities associated with interacting with the consumers of food, either directly, or through partnerships with retail food markets, chefs, institutional buyers, or food banks and other food assistance stakeholders. Finally, the food system includes the consumer households, and the values they place on food attributes, their ability to get access to sufficient nutrition and the impacts on their health of the foods they choose. As you move from left to right the primary activities move through time and adding further value to the end product. Linking these five primary activities together forms a food supply chain. But food production, marketing and eating is only part of the food system.

The top half of the graph represents a set of organizations and activities that are convened and conducted to support the primary activities of the food system. These include organizations whose missions are to regulate, provide technical assistance to, provide research on, coordinate activities surrounding and advocate for the food system. In a well functioning system, these would support all elements of the value chain, but in reality, it is more likely that there is better and lesser support for different elements of the food system, and that there could be better coordination among supporting organizations. A thorough analysis of the food system must include the voices and issues these stakeholders bring to the discussion, because the steps after the assessment will require such food system leaders to carry forward priorities and any agreed upon action items.

What do you do with this figure? That is, why do we consider both support and primary activities? It helps think about all of the activities and organizations involved in the food system, how they connect, and with good data, what the relative size of the economic activities associated with each element are, and what this might say about how the region could plan to grow, shift or change some of those activities in ways that benefit the environment, economic and/or human health and well-being.

Section 2: Organizing the Effort

As suggested in the discussion about the scope of the food assessment, it is essential to consider all relevant activities, stakeholders and topics that affect and are affected by the food system. There are three important elements to consider when organizing the elements: leadership, technical assistance partners and advisory groups.

The leadership for the project needs to be diversified in several ways including technical expertise (in our study the three county lead players spanned land use, agriculture, and public health arenas), geography (not just across the region, but also consider rural vs. urban food issues), and skills (a good team should include a good process person, a good public relations/media savvy type and an analytical/research oriented partner). Although a whole leadership team is needed, it is essential that one key person is designated as the overall coordinator, constantly evaluating the mission, timeline and engagement of the group.

Technical assistance partners are also key players in this process. In many cases, they may naturally occur among the leadership team, especially if the project was partially driven by a governmental or University mission. However, it may be necessary to contract or hire such personnel as well, either for facilitation, data gathering and analysis or both. These partners should be a part of ground level organizational efforts, and be available for the majority of meetings. Much of the process and analysis should be consistently truthed with advisory group feedback.

The advisory partners could be teams of key stakeholders brought together to give feedback on the process and findings. How you use this team varies (and is discussed below), but it is essential to include broad representation to decide on the scope of the study, key findings and recommendations. In this case of this project, which was multi-county, there were both individual advisory groups and a steering committee, which was a blending of key persons from each of the 3 county teams. This allowed for better coordination across the regional effort, and was a place for the leadership to get more focused feedback and integration of what each county was discussing.

As discussed in Section 1, the team must decide what the study is going to include. The Northern Colorado assessment was very inclusive, with 4 elements (some divided into subgroups): inputs (natural and purchased), production, marketing (distribution and markets), and consumers (behavior, food security, and health outcomes). Using advisory groups, a community or region can consider what they are trying to get out of the study as the basis of deciding what they want to research, and some facilitation may be needed to arrive at that decision. One area of interest for this assessment was the natural resources and agricultural infrastructure threatened by land use decisions and trends. But for other communities, key issues may lead to more post-production issues such as strategies to reduce food waste streams, or to detailed study of the existing organizations, regulations, and policies within the community that support or influence the food system.

If the technical assistance is not part of the key leadership team, the call for proposals to do such work should be completed after this step: choosing the right team will be dependent on the scope and depth expected of any analysis.

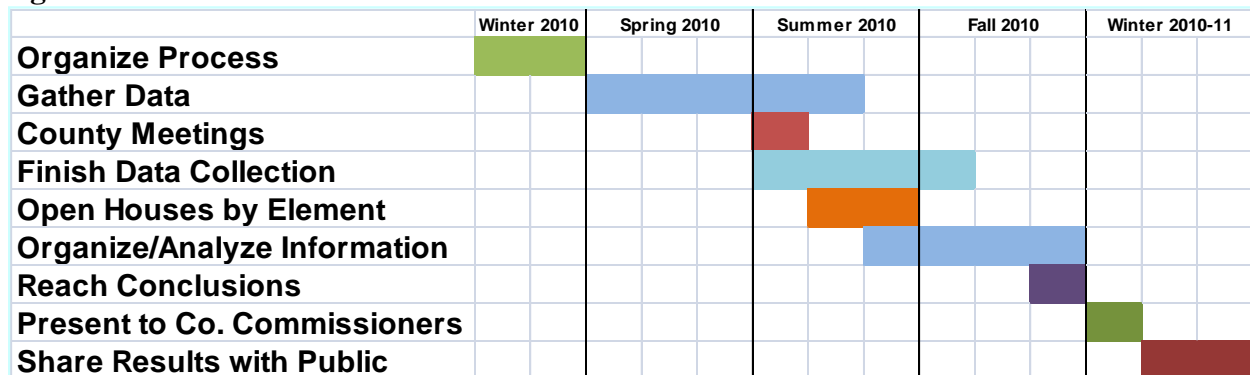
Section 3: The Assessment Timeline and Process

There are a couple of important considerations in running the assessment process, including the timeline and approach to bringing the pieces together. Figure 2 shows the timeline developed for the Northern Colorado assessment process. Beyond making assurances to any potential funders of the project, this timeline is also important to share with anyone being invited to the effort, so they can see the scope of the effort they are signing on to. Plus, if any technical assistance is needed, it will allow that team to understand when their contributions will be needed. To refine this timeline even further, the different partners (leadership, technical assistance and advisory groups) will have to decide how often they need to meet during different stages of the process.

For the Northern Colorado assessment, the groups met most often during the data gathering phase, so they could provide feedback on where more information could be found, what other trends they would like more information on, and what findings were worth further consideration and discussion.

Identifying goals is the other major element of the assessment process. Although some broad goals were probably already framed to attract funding, the technical assistance and leadership team should try to assess the more specific data, facilitation, strategic planning and publicity goals of the broad team early in the process. Feeling there is some level of engagement from the team, and that their key issues will be highlighted, will help to get everyone involved and to buy into the full project scope and schedule (knowing full well that it will morph some during the process.)

Figure 2: Timeline for Northern Colorado Food Assessment



Section 4: Gathering Data and Case Studies, and Informing the Assessment

Perhaps the “anchor” activity of the assessment will be the point where data, trends, maps, case studies and emerging efforts in the community are analyzed, discovered and discussed. As the discussion on the scope of the study may suggest, one way to organize this discovery is through

elements of the food system, although it will quickly become evident where various activities and issues overlap and bridge to and from one another. Below we share the scope of discovery that was taken on by the Northern Colorado Food Assessment, with some discussion of useful resources and approaches to bring this together.

- 1) Agricultural Inputs -- Natural Resources:** The focus of this element of the assessment is on defining capacity, historical trends and how capacity may be impacted by land-use changes, water restrictions and zoning issues.

Data/findings will likely include the following, which will require partnerships with local planning department and assessor's office, water agencies and districts, and USDA agencies including the Farm Service Agency and Natural Resource Conservation Service:

- Maps of land in all 3 counties with current use/zoning delineated (see Section 2)
- Maps of relevant water districts with production delineations (irrigated vs. non-irrigated, types of irrigation)
- Land use trends for the past 20 (or so) years
- Water consumption for past 20 (or so) years
- Estimates of “revenue” per acre for land and acre-foot for water (from aggregate numbers) (bridge to Production)
 - Data Resources: Natural Resource Conservation Service:
<http://www.nrcs.usda.gov/>
 - Natural Resources Conservation Service Soils – <http://soils.usda.gov>
 - USDA Farm Service Agency: <http://www.fsa.usda.gov/FSA/>
 - USDA National Ag Statistics Service: <http://www.nass.usda.gov/>
 - Colorado-specific Water Support Systems:
<http://cdss.state.co.us/DNN/SouthPlatte/tabid/58/Default.aspx>
 - Region-specific Water Organizations, such as Northern Colorado Water Conservancy District – <http://www.ncwcd.org>
 - County Assessor's office for land use data used in property tax classifications
 - County Planning office for zoning maps (share maps in Section 2 with local offices as examples)
 - County Parks, Natural Resources, or Open Lands office for ownership mapping of any publically held land or conservation easements

Additional data to collect, connect with other topic areas and explore:

Role of new public programs on production capacity (USDA Farm Bill, open lands access for small scale production, urban gardening); Water consumption use estimates for potential changes in irrigation technology and/or cropping system changes

- 2) Agricultural Inputs – Commercial Purchases:** The focus of this element of the assessment is on assessing linkages within the agricultural sector. Using estimates of input-derived demand from the production data, we hope to determine what economic activity stays in the region, and what may be “leaking” out because of limited capacity, competition and such.

Data/findings can include the following, but given the small number of enterprises in many areas, some of it may not be publicly available (as was the case in our region). So, production expenses may need to be used as a proxy for the business activity in this section, along with vignettes on key input enterprises:

- Data that is available from Business Census on Revenue/Employment in Input sectors
- Estimates of production expenses invested by producers in the region, derived from reported expenses in the USDA Census of Agriculture (conducted in 5 year intervals)
- Data shared by participating coops, businesses and industry organization contacts
- When necessary, use state-level Business Census data, which is more complete but less focused on agricultural enterprises, to estimate region's share of state total.
- Baseline labor use data for region from Census and USDA estimates

Data Resources:

- USDA National Ag Statistics Service, <http://www.nass.usda.gov/>
- Census of Agriculture (updated every 5 years): <http://www.agcensus.usda.gov/>
- U.S. Department of Labor CPI Inflation Calculator: accessible at http://www.bls.gov/data/inflation_calculator.htm
- County Business Patterns, US Business Census: <http://censtats.census.gov/cbpnaic/cbpnaic.shtml>

Additional data to collect, connect with other topic areas and explore:

Vignettes on new input sectors that have emerged because of new agricultural markets (in this region, that included Ranchway Feeds and organics, New mix of smaller implements for small acreage owners, animal processing capacity); Economic modeling of potential gains from increases (or changes) in intermediate input purchases and/or local labor sources in the region

- 3) **Production:** This section is really “ground central” for the assessment, as it shows the food available in the region to fuel a local system. Industry-based production will be the focus, with gardening left to organizations and households since the connections to the market are managed differently.

Data/findings include the following, but it is a challenge with USDA Ag census data available every 5 years, and some recognition that some small farms may still be missing from the census:

- Data already collected on total acres, revenues, cropping mix, structure of farms (by size), animal numbers and revenues
- Trends on total land, animals, revenues and major crops
- Some differentiation by market; direct sales, agritourism, organic (bridge to marketing)
- Trends in size and ages of farm operators over the past 3-4 Census data periods

- Estimates of “revenue” per acre for land in different cropping systems (bridge to natural resources)

Data Resources:

- USDA National Ag Statistics Service: <http://www.nass.usda.gov/>
- Census of Agriculture (updated every 5 years): <http://www.agcensus.usda.gov/>
- USDA Economic Research Service Farm Economy Branch: <http://www.ers.usda.gov/Browse/view.aspx?subject=FarmEconomy>
- State Extension Enterprise Budgets: In Colorado, at: <http://www.coopext.colostate.edu/abm/cropbudgets.htm>
- Ag of the Middle Research Group, <http://www.agofthemiddle.org/>

Additional data to collect, connect with other topic areas and explore:

Focus groups with producers to confirm estimates on direct and organic sales, estimate cropping mix changes since most recent Ag Census, discussion of new typology for producers. The table below shares the new typology USDA uses to categorize agricultural producers, and use of these may be important to your region’s effort to classify types of farms and the resources, agribusinesses and market access needs of these types.

USDA Defined Farm Types	
Small family farms (gross sales less than \$250,000) ¹	Large-scale family farms (gross sales of \$250,000 or more)
<p>Rural-residence family farms:</p> <p>Retirement farms. Small farms whose operators report they are retired.</p> <p>Residential/lifestyle farms. Small farms whose operators report a major occupation other than farming.</p> <p>Intermediate family farms:</p> <p>Farming-occupation farms. Small family farms whose operators report farming as their major occupation.</p> <ul style="list-style-type: none"> •Low-sales farms. Gross sales less than \$100,000. •High-sales farms. Gross sales between \$100,000 and \$249,999. 	<p>Commercial family farms:</p> <p>Large family farms. Gross sales between \$250,000 and \$499,999.</p> <p>Very large family farms. Gross sales of \$500,000 or more</p>
	<p>Nonfamily farms</p> <p>Any farm not classified as a family farm, that is, any farm for which the majority of the farm business is not owned by individuals related by blood, marriage, or adoption.</p>

¹The National Commission on Small Farms selected \$250,000 in gross sales as the cutoff between small and large-scale farms.

4) Marketing/Outbound Distribution: The focus of this is estimates of food marketed commercially in the region, including retail stores, direct by farmers, and food away from home (chefs, schools, institutions). Data/findings to include:

- Household income, food spending and fresh produce, meat and dairy spending

- From Business Census data, retail food sales revenues and money spend at food service/restaurants
- Capacity estimates on USDA inspected livestock/animal product slaughter and processing (link to marketing)
- From CSU Extension fact sheets, estimates on primary, secondary and seasonal food markets
- Food expenditure estimates altered by higher Colorado spending and income estimates
- Estimates on food expenditures by school district (estimated with per-student numbers were not directly available); share that are reduced-free (bridge to food access)
- Comparisons of local, direct sales (Ag Census) with households who shop/prefer local and direct purchases (from CSU Extension survey) to determine “gaps” (bridge to production)

Data Resources:

- USDA Economic Research Service Food Atlas: <http://ers.usda.gov/foodatlas/>
- USDA Economic Research Service Food Sector Branch: <http://www.ers.usda.gov/Browse/view.aspx?subject=FoodSector>
- USDA Ag Marketing Service, Farmers Markets and Local Foods: <http://www.ams.usda.gov/AMSV1.0/farmersmarkets>
- Colorado MarketMaker: <http://co.marketmaker.uiuc.edu/>
- Bureau of Economic Analysis: Personal Expenditures Data, <http://www.bea.gov/national/>
- Colorado Department of Agriculture-Markets Division. Farm Fresh Directory. <http://www.ag.state.co.us/mkt/farmfresh/farmersmarkets.html>
- Applied Extension Research, at CSU: http://dare.colostate.edu/pubs/extension.aspx#agricultural_marketing
- ATTRA - National Sustainable Agriculture Information Service for data on alternative markets, including CSAs. <http://attra.ncat.org/attra-pub/csa.html#trends>
- Information collected from school districts, distributor partners, farmers markets, food banks.

Additional data to collect, connect with other topic areas and explore:

“What if” scenarios on potential growth for local food purchases among consumers, restaurants, and farm to school programs, local contributions to food security (linkage to food security discussion), estimate revenue through CSA arrangements (bridge to production), cropping needs to meet health/USDA food recommendation goals (link to health indicators)

- 5) **Food Access, Security, Consumers and Health Indicators:** The focus of this is on detailing market access points and food security program usage for households with a particular focus on lower income households. Gardening may also be included here since it is less market driven (and data is from different sources). Health is connected in

terms of both hunger, nutrition and health issues that have arisen from improperly balanced diets.

Data/findings to include:

- Information on free and reduced lunch usage (as indicator of food security)-bridge to marketing
- Number of community gardens in the three counties-bridge to production
- Food provided by Food Banks and other food security programs
- Incidence of obesity and diabetes (diet related health outcomes)
- Share of households consuming recommended daily servings of produce (bridge to marketing)

Data Sources:

- USDA Economic Research Service Food Atlas: <http://ers.usda.gov/foodatlas/>
- USDA Economic Research Service Food Security Branch: <http://www.ers.usda.gov/Briefing/FoodSecurity/>
- Colorado Department of Public Health and Environment, Colorado Health Information Dataset. <http://www.cdphe.state.co.us/cohid/brfss.html>.
- Trust for America's Health (TFAH) and the Robert Wood Johnson Foundation (RWJF). 2010. —F as in Fat: How Obesity Threatens America's Future. <http://healthyamericans.org/reports/obesity2010/Obesity2010Report.pdf>.
- Centers for Disease Control. The Behavioral Risk Factor Surveillance System (BRFSS) is a CO-based system of health surveys that collects information on health risk behaviors, preventive health practices, and health care access primarily related to chronic disease and injury. <http://www.cdc.gov/brfss/>.
- Information from local health foundations, community garden organizations, food banks. Share maps in Section 2 as examples with local resource groups.

Additional data to collect, connect with other topic areas and explore:

Connection between food access and health indicators, role of local foods in food bank and food procurement by low income households, maps of food access that may indicate food deserts, role of gardening in food access, health indicators and markets

Information on Supporting Organizations:

This part of the food system touches all aspects of the food system, but different organizations influence some elements more than others. In the assessment, you could include a listing of all organizations in these categories that affect, influence, provide resources to or have regulatory responsibility for aspect of the food system. Perhaps the number of paid and volunteer staff hours, budgets, grants and donations as indicators of significance, resource needs and “demand” for services from these organizations....since this would otherwise not show up in data, but shows community/government/personal investments in those issues.

Proposed Extension: More outcome data including community members served, educational outcomes met, membership gains, partnerships formed and federal/state dollars brought back to region and economic impacts measured.

Section 5: Publicity and Outreach

One of the primary benefits of conducting a regional food system assessment is the public education benefits of the process. For many people, the study will provide the first exposure to the concept of local food forming an important infrastructure system for the community. To be most effective, multiple communication tools should be used. These might include a project webpage, public meetings, open house events, project team/advisory committee meetings, paper questionnaires, electronic polls, press releases, radio interviews, presentations at food system related venues, etc. Two-way communication is the goal: to get the word out, and input back, about the study.

Because the study will be ongoing for several months in the community, it is important to “brand” the process using recognizable graphics, a consistent theme statement and other similar tools. Successful branding acts to teach the public to look for information about the study by recognizing a common identifying element or elements.

As in any public outreach effort, it is important for people to feel their comments were heard. Taking notes of public comment in visible ways (like flip charts, sticky notes, and projected images) is important. Posting the tallied results of questionnaires helps show that the project leadership is listening to the input.

Presentation materials should be attractive and easily understood. Use a family of similarly formatted posters and handouts to summarize data. Be accessible by telephone and e-mail to answer questions after public meetings.

Section 6: Identifying Key Findings and Drawing Conclusions

An assessment documents the components and condition of the food system as it exists. It is not a policy document. Therefore, findings and conclusions need to stay close to the inventory work that was done. A separate process would be needed to convert the realization of “what is” into a policy statement of “what should be.”

Because the food system is so broad and complex, even a very thorough assessment will turn up as many questions as answers. That is, upon investigation of a body of facts, new, related uncertainties or quandaries will emerge. These new questions are important and should be captured because they may motivate future efforts. In the Northern Colorado Regional Food System Assessment, we found it useful to segregate our conclusions into a matrix as shown below.

Element of the Food System	Key Findings Discovered	Additional Information Desired
Overall Food System		
Agricultural Inputs Element		
Agricultural Production Element		
Processing, Distribution, Marketing Element		
Food Security, Nutrition, Public Health Element		

The data gathered to describe the various elements of the local food system does not tell the whole story of the local food network. To present a more well-rounded and authentic picture of the local food system, it may be useful to include brief descriptions of other activities and events occurring in the community related to local food. Some of these activities and events may be connected to the food assessment in some way. For example, key people involved in these efforts may have been introduced to one another through the study process, or data gathered by the assessment may have aided their effort in some way. These connections should be highlighted in the description of the activity. It may also be useful to include descriptions of local food related activities that were not linked directly to the study, because they help document the level of interest in food issues in the community.

Figure 1: The Food System Value Chain

The Food System

