

Module 4



ENGAGING YOUR COMMUNITY PROCESS WITH DATA

Key Themes of Module 4



- The key discussion points and data interpretation strategies when discussing initial findings
- Three common methods to reduce your data into thematic findings of interest to general audiences
- How to engage your broader community for assistance in identifying key food system trends and understanding basic food system dynamics
 - Different avenues and approaches for presenting your key findings to your community
- Quick tips for enhancing the substance of your project results and anticipated economic impacts

At this stage....your team has



- Defined its scope, specific goals and objectives, timeframe, available resources, and regional boundaries (module 1);
- Collected requisite primary and/or secondary data (module 2 for secondary data and module 3 for primary data);
- Begun to examine, analyze, and discuss those data findings that will best help your community/region, understand the condition and structure of its current food system, and subsequently be better equipped to make well-informed, positive interventions.

Strategic approach to data interpretation



- Developing a shared project team mission centered on key data findings
- Engaging public support through unique community trends and indicators
- Letting the data speak: framing analysis that leverages key findings, supporting improved prioritization, interventions, and outcomes
- Implementation and feedback mechanisms for more focused analysis.

Developing a Shared Project Team Mission Centered on Key Data Findings



- What have we learned so far?
 - How do we interpret the data we collected –and begin to craft a story of the findings and prioritize action steps?
- What information gaps or data needs are there?
 - Places where additional information can help to tell a story and prioritize action steps;
- Are there activities that are occurring that demonstrate the transitioning food system?
 - Activities that are occurring simultaneously that show that the work done on the assessment is part of a broader interest, as well as things that can easily be accomplished – in other words, the low hanging fruit.

What story is emerging from the data?



- Help your internal team to understand in a deeper way what's happening in the community
 - Particularly exceptional characteristics (i.e., above average spent on food, high share of land in specialty crops).
- It will help you craft a narrative that includes hard numbers and justifications for recommendations:
 - How money flows through your community;
 - Which assets you have that need to be protected;
 - Where investments might provide the biggest impacts– in terms of job creation, improved farm viability, etc.;
 - The key issues your community confronts;
 - Which actions can be expected to make a lasting difference?

Is Prevailing Wisdom Accurate?



- Often groups take action based on assumptions, habits of thinking, or an overly simplistic assessment of the issue just to get things moving.
 - For example, we may believe that investment in a local slaughterhouse improves the viability of the local beef industry.
 - With numbers on paper, you discover the scale of a facility supported by animal numbers results in high processing costs.
 - This type of intervention might worsen cost competitiveness
- Another example....USDA Ag Marketing Service study mapping competition zones for farmers markets customers & vendors

<http://www.ams.usda.gov/AMSV1.0/getfile?dDocName=STELPRDC5094336>

Critically examining assumptions & biases



- Whether the relationships or conditions you perceive really exist
 - Quantitative data can form the basis for a potential explanation,
 - But qualitative data will help to determine how well it holds up given *your community's* perceptions and experiences
- Reason(s) behind existing data relationships
- Emerging conditions and/or new trends
- As your group works together more effectively, you are likely to gain increasingly potent insights on local conditions and the types of interventions that are likely to yield positive community benefits

Letting the Data Speak



- Modules 2 and 3 showed us data are increasingly available, so figuring out how to prioritize the data and findings to craft them into a meaningful story
- Community meetings can be an ideal place to solicit feedback on areas of interest or importance.
 - This step can be time-saving in that further investigation can be minimized if findings on some issues are of minimal interest to community-stakeholders.
- Sharing of data is another strategy to keep key influential partners engaged
 - Opportunity to keep people at the table until you are ready to implement programs or policies.

Reducing data to thematic findings



- Three common methods including:
- Trends in food industry indicators such as land use, consumer buying habits, diet-related health indicators and market channel sales.
 - Secondary data can be very useful for these exercises since many of those sources have been available for decades.
 - Although two points in time may be of interest, a graphic showing change over many years may spur more discussions of important milestones.

Comparative Analysis



- Compares to adjacent regions, the state or the US
 - Simple column graphs may be visually striking as they show whether the region of interest is higher or lower and the degree of difference more clearly than a table
- This serves as a benchmark for the community and leadership team, and may regions to emulate
 - Compare your community to others using cluster mapping, mapping regional concentration of related industries
- Demonstrate your comparative advantage using a location quotient to compare the industrial activity levels among different areas of the country.

Brainstorming on Linkages across System

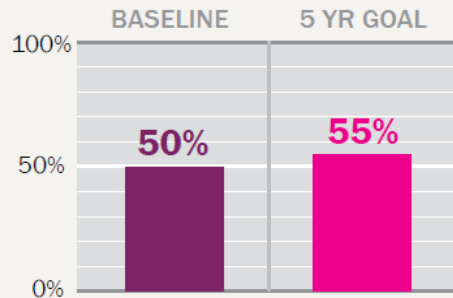


- Beginning to share these linkages (that may be held as beliefs but not yet evaluated with data), should catalyze some interesting discussions
 - Especially if long held beliefs are not verified with statistics.
 - For example, the data may show farmers' market sales in a county have increased at the same time expenditures on dairy products and fruits and vegetables have increased
 - Showing trends at two points in time on the same graph may interest those interested in both those issues
- Leverage the power of system-level analysis

Strengthening Buffalo's Food System

How Buffalo Is Doing

Average percentage of households with low vehicular access per block group within five minute (.25 mile) walk of a healthy food retail destination



Data Details

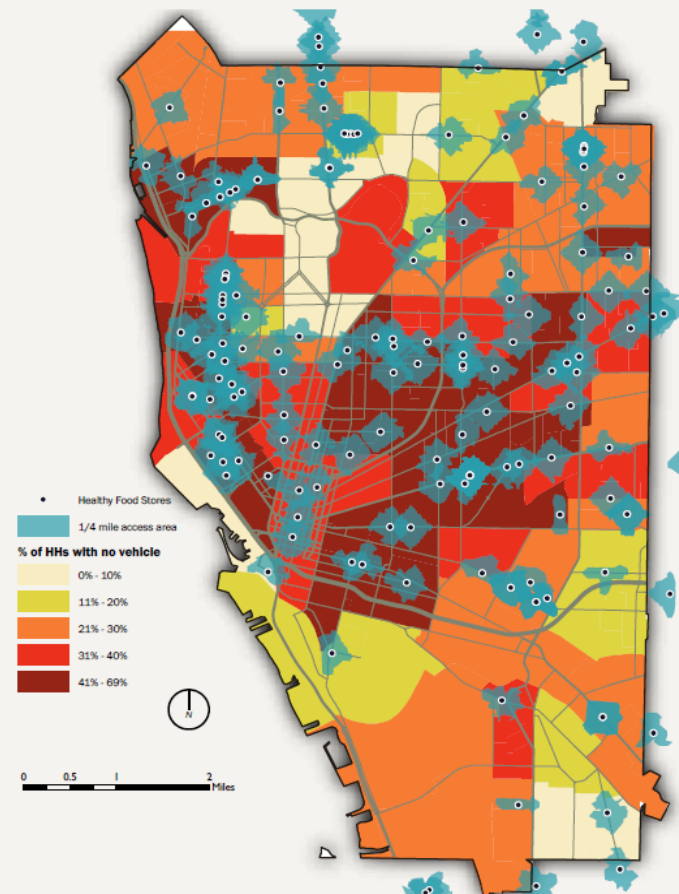
DEFINITION Percentage: [(Number of census blocks with low vehicular access (more than 40% of households without access to a motor-vehicle) and within a .25 mile walk from healthy retail/Total number of census blocks in the City of Buffalo)*100]

GEOGRAPHIC SCALE Citywide

DATA SOURCE Reference USA; US Census 2010

NOTES *Supermarkets and grocery stores

Location of healthy food retail in relationship to block groups with low vehicular access



Buffalo as a Case Study



- This colorful synthesis of data across system
 - Prepared by the U. of Buffalo's Food Systems Planning and Healthy Communities Lab (2013)
 - By overlaying a GIS map displaying the % of households with no vehicles and the location of healthy food retail stores, those without ready access to healthy food displayed.
- Does an excellent job in making the data definition, data source, baseline, and goals easily available and understood--building support for interventions

For more information: Delgado, Cristina, Travis Norton, and Samina Raja. 2013. [*Indicators for a Healthy Food and Built Environment in the City of Buffalo*](#). Healthy Kids-Healthy Communities-Buffalo partnership and the Food Systems Planning and Healthy Communities Lab, University at Buffalo. 20 p.

Words of Caution



- Work with your research advisers to make sure that you interpret your findings carefully.
 - One common mistake is to confuse **correlation** with **causality**: just because two developments happen in a similar time frame does not mean that one caused the other
- Every difference in measurement does not represent a **significant difference** –
 - i.e., the difference between two groups is statistically significant if it cannot be explained by chance alone. F
 - or example, is it really significant to your community whether 23% of the population is food insecure (compared to 24% at the state level)?

Issue to Reflect on at this Point



- Did data results – or distribution of data – reveal any particular strengths or weaknesses in your approach?
 - If the data does not seem realistic or appropriate, it may be due to the methods you used to collect it.
- Can you identify the potential for increased linkages across the resources, infrastructure and segments of your food system?
- What opportunities or threats in your local food system did you uncover in your initial research?
 - Does that warrant redirecting your initial plans for more in-depth analysis? Community action?

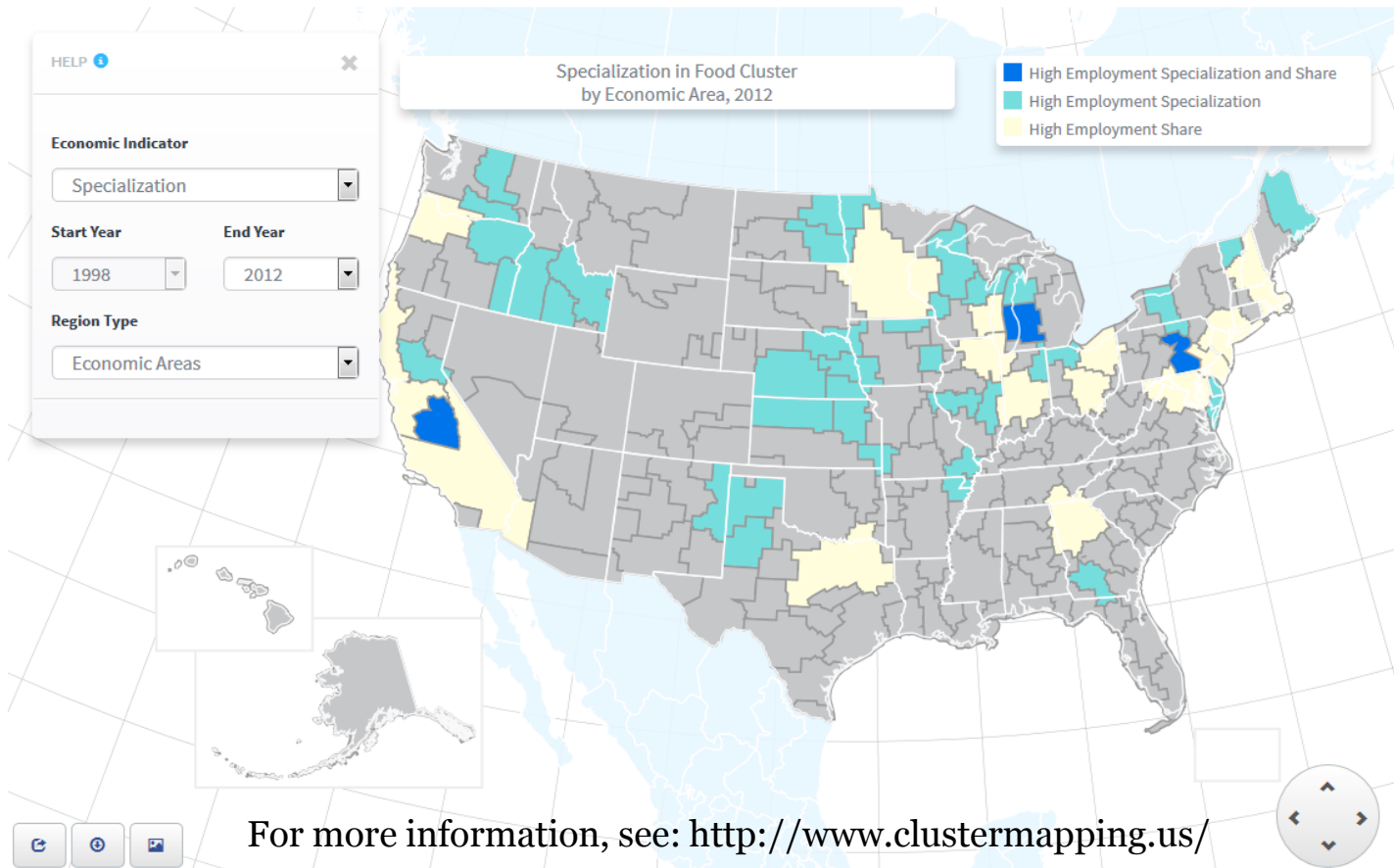
Cluster Mapping and Location Quotients



- Often used to compare economic characteristics
- Cluster is a concentration of related industries in area
 - Includes the companies in the industry as well as those who support the industry, such as suppliers, service providers, and government agencies
 - Two sectors that may be the most visually interesting to map are food processing and manufacturing and agricultural inputs and services.
- In conducting a cluster mapping exercise, your team is looking to see if there are large groupings or **agglomeration** of a certain type of food enterprises.

US Cluster Mapping Website

This Cluster Dashboard provides data on the economic performance, geographic presence, and subcluster and industry composition of this cluster. The map illustrates the economic geography of this cluster. Click on any region for specific regional data or to go to a Region Dashboard. Use the controls on the map to adjust the type of data displayed. Browse this Summary page or select a tab at the top to dive into more detailed data.



U.S. Economic Development Administration and Harvard Business School initiative provides open data on regional clusters

Website distinguishes between two types of clusters: traded clusters and local clusters.

Location Quotients (LQ)



- Ratios that allow your team to compare the concentration of a resource or activity specified in your study to that of a larger area, such as your state
- A comparison of location quotients can identify sectors of opportunity to deepen the contributions of the food system to the broader economy
 - For organic and natural foods, a goal for a region may be to increase their location quotient by connecting local grain growers with organic feed suppliers or organic bakeries.
- The Bureau of Labor Statistics (BLS) provides a LQ calculator, <http://www.bls.gov/cew/cewlq.htm>

Engaging Public Support



- Perhaps the “anchor” activity is analyzing, sharing and discussing data, trends, maps, case studies, and emerging efforts in the community
- Module 1 shared ways to organize this discovery (elements of the food system, network relationships)
 - But it will quickly become evident where various activities and issues overlap and bridge to and from one another.
- At this stage, it may be helpful to engage the broader community for their assistance in identifying key food system trends and understanding basic food system dynamics

Share findings from the initial phases:



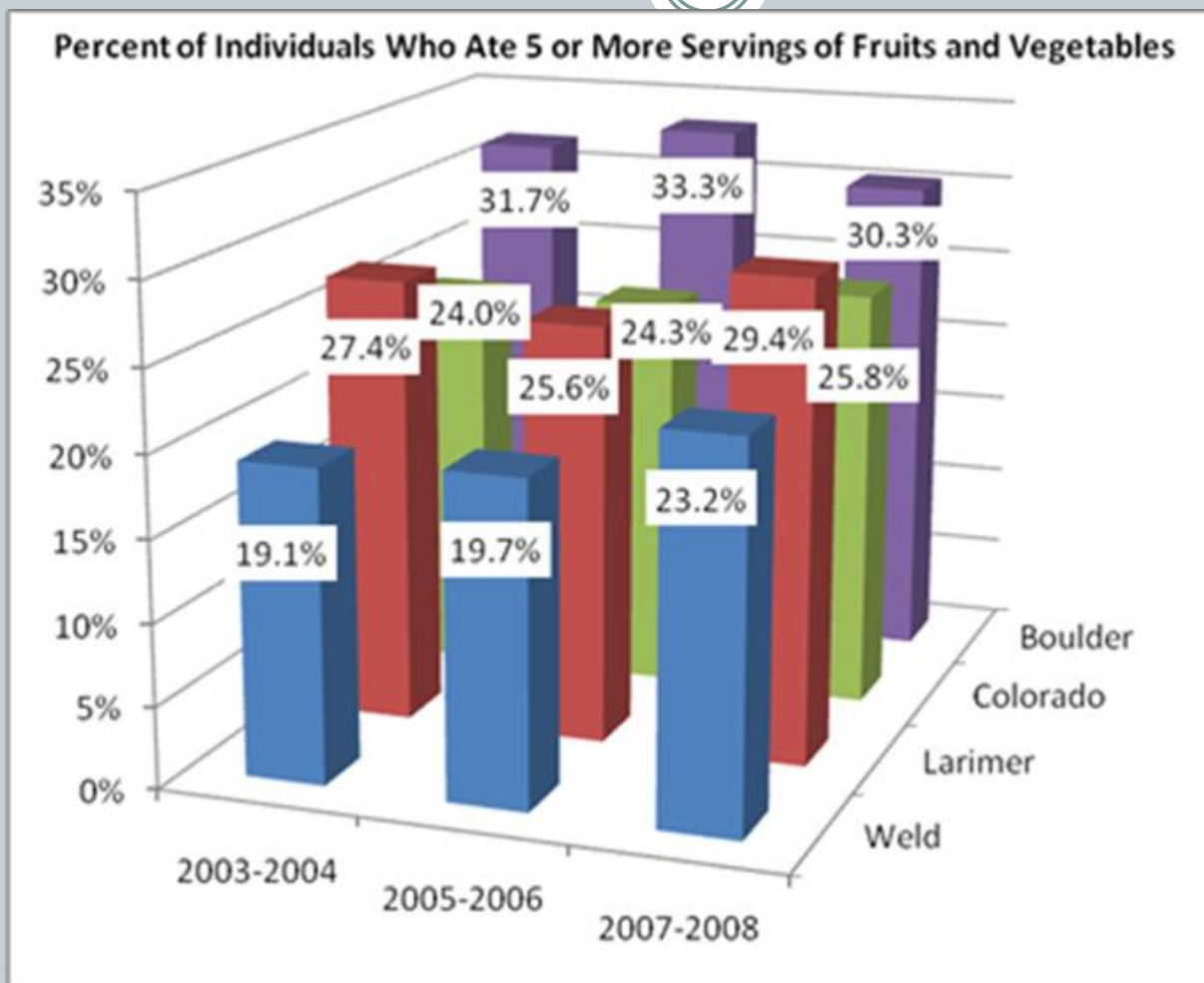
- Summarize what was learned through the initial data gathering process
 - Including findings that were unexpected or unique to the community (compared to state or nation)
- Identify missing information about the food system that is clearly important, but was not gathered
 - See if community members can help contribute more data
 - Frame actions that could be taken in the short-term
 - If findings are surprising, non-credible, or curious enough to spur community debate
- Demonstrate the relevance of the food system, engaging those who see their “interest” represented

Can you frame a compelling story?



- A combination of data and story line is very persuasive.
 - Have an impact on your audience in an honest manner, simplifying the elements of the story enough to communicate major points
 - Make sure to accurately portray (perhaps with visual aids) the actual complexity of food system and supply chain relationships as well as the conditions on the ground.
- One way to accomplish this goal is to showcase the most important takeaway observations
 - For example, one to five really important things that you learned.
- Use these lessons as the focal point of your story, beginning with your original research goals, methods and data, and implications of your research results

The Case of Public Health in Northern Colorado



For more information: <http://www.larimer.org/foodassessment/>

Northern Colorado Regional Food Systems Assessment



- There were significant differences in consumption patterns across the counties.
 - No county had high shares of individual who ate five or more servings of fruit and vegetables as expected, given the perception that Colorado is a relatively healthy state
 - Despite having the lowest average rate, Weld county was improving its share who ate 5 or more servings
 - Upon further discussion with community stakeholders, it was determined that projects and investments by LiveWell Colorado (a key partner in this region) appeared to be making a difference

Presenting your Findings to Community Stakeholders



- For a broader public, many assessment teams compile a four-page summary of key findings with compelling photos and graphics, and hand it out to constituents. Here, an attractive format is essential.
- You may also want to publish issue-specific summaries that run from five to 20 pages.
 - These may be visually appealing, or they may focus on tables of data, depending on the issue and the audience.
 - One example would be a fact sheet for local decision makers illustrating the potential benefits and drawbacks of investing in a produce aggregation business.

Opportunities for Engagement?



Depending on the interests of community, shared resources may include lists of food businesses & farms, summary tables or tailored fact sheets on specific topics

- Posting your database or blog on an electronic portal, inviting feedback, and responding to posted comments from the public
- Computerized databases have the benefit that they may become the “go to” place to find local conditions
 - One example of such an effort is the Maryland Food System from Module 2—it shows visualization of a region can give your food initiative considerable power.
 - But, a local database is a long-term commitment, and if not maintained, may reflect on your project poorly

Implementation and Feedback Mechanisms



- **A simple revenue calculation**
- How much local farm revenue would increase if every local resident purchased more locally produced food.
 - Makes assumption that if every household in the area increased their purchases of locally-grown farm products by \$5/week, it would generate an additional X amount in local farm revenue.
 - However, this type of simple revenue calculation suffers from a number of deficiencies and should be employed with caution.
- This type of simple calculation does not take into account the concept of **opportunity cost** –
 - i.e., the cost of an alternative activity that must be forgone due to the additional purchases of locally-grown food

Other Interpretation Strategies



- **Social and commercial network analysis.**
 - Only through stronger connections can money recycle within a given community.
- Analyzing **social networks** provides practitioners a very visceral way of viewing the interactions between diverse sectors of the food system —
 - A restaurant might feature a certain food on the menu because several farms grow the required product nearby, and this food might become a regional specialty over time.
 - One Ohio ice cream maker, for example, coordinates with several farms to create a buttermilk, sweet corn, and blueberry ice cream made largely with local products.

Network Analysis



- The primary components are **linkages** and **nodes**;
 - Nodes represent individual people or entities (such as a business or a web site), and linkages are relationships between two nodes
 - Focusing on nodes, how they are connected to each other, and the relative strength of those connections gives rise to charts where nodes points and lines represent linkages.
- Network charts allows researchers to determine network structure.
 - The number of connections a node has and the types and/or qualities of those connections largely determine this structure
 - One commonly used software for visualizing and analyzing social networks is **Ucinet**: www.analytictech.com/

Takeaways from Module 4



- A primary benefit of conducting a food system assessment is the engagement and awareness that may emerge as study is framed, data is compiled, and unique aspects of the region emerge
- As you build greater public awareness of your local food assessment work, you will likely attract greater attention and support from key stakeholders in your community or region.
- This phase may be the first time you want to consider how the planning process and community discussions will continue beyond the assessment stage

Takeaways from Module 4



- Presentation materials should be attractive and easily understood, and it may even help to “brand” the assessment effort on all handouts, posters, and other materials.
 - To be most effective in engaging the community, multiple communication channels should be used including a webpage, social media, public meetings, open houses, and presentations at food system related venues and events.
- By “reducing” the data into visually engaging figures, tables, and graphics
 - May help the broader community to understand and connect how different elements of the system influence one another.