Data-Driven Decision Making: A Data Primer

Data is defined by Dictionary.com as “a body of facts; information.” Community and business leaders use data to guide decision-making processes. Data (in the plural, individual facts or pieces of information) help decision makers to assess a situation and alternatives objectively. As leaders we constantly gather data. We note that our colleagues do not appear to be on board with a decision (a qualitative observation of body language or conversations). Perhaps we follow up with a survey asking employees whether or not they agree with the decision (a yes or no quantitative measure). If we ask a question asking employees to suggest alternatives, we have solicited additional qualitative data.

Qualitative data deals with attributes. For example, a region has a diverse population. Quantitative data addresses the measurement of attributes, things that can be counted. A survey (or Census data) would reveal the number of races or ethnicities in the community and the percent of the population in each group.

Primary data is collected by the user. Examples include data obtained by surveying community residents, focus groups, asset mapping, and appreciative inquiry. Because the end-user of the data designs and asks the question, primary data usually directly answers the question being asked. But it can be time-consuming and/or expensive to obtain. Primary data can be either quantitative or qualitative.

Secondary data is already collected and is used by someone else. A common example is Census data; community leaders often use Census data to identify population or employment growth. Secondary data is often inexpensive and easy to access. But, because it was collected for another purpose, it may not fully answer the community’s questions or fill their needs. Secondary data users should consider whether the data is relevant to the community’s question; the time period and geography fit their needs; the data source is reliable; and variables, definitions, and measurement are consistent or comparable over time. Many common secondary data sources are quantitative, but secondary data can be quantitative as well.

Data may be cross-sectional, looking at a single point in time; comparative, looking at one region relative to another; or longitudinal, considering how the situation changes over time. Longitudinal data provide opportunities to address the assets and needs of changing communities. Comparative data can provide interesting case studies and help to identify and vet potential opportunities.

Examining data can help leaders to identify issues, important changes and new opportunities; understand what has and has not worked in a community; and make decisions that reflect the entire community and situation rather than merely the perception of a vocal or influential group.

What to Look for in Your Data:

- **Conditions** – What appears to be happening? Is unemployment high or low?
- **Direction of change** – How is the current condition changing over time? Is the employment picture improving or worsening over time? (Identify the time period(s)).
- **Intensity of change** – How dramatic is the shift?
- **Overall picture** – How does this piece of information fit with other information? Is unemployment lower because people are getting jobs, families are moving away, or the population is aging?

Sources:


Developing Critical Thinking Leaders Module 4: Strategies for Obtaining and Using Qualitative and Quantitative Data, Greg Clary, Texas A&M AgriLife Extension Service