

# UNDERSTANDING & INTERPRETING DATA

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.

Secondary data are collected by entities such as state and federal government agencies and tend to be inexpensive and easy to access. 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.

## Data may be:

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

## What to Look for in Your Data:

- **Conditions** – What appears to be happening? E.g., Is unemployment high or low?
- **Direction of change** – How is the current condition changing over time? E.g., 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? E.g., Is unemployment lower because people are getting jobs, families are moving away, or the population is aging?

## Sources:

Stronger Economies Together Module 5: Examining Current Demographic Features of Your Region, Alison F. Davis, University of Kentucky, [http://srdc.msstate.edu/set/curriculum2/module5/module\\_5-instructors\\_guide.pdf](http://srdc.msstate.edu/set/curriculum2/module5/module_5-instructors_guide.pdf).

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

# STEP BY STEP DATA INSTRUCTIONS

## Census – American Factfinder

<https://factfinder.census.gov>

To download data from the OPPE Data Links PDF:

1. Click Advanced Search on the left side of the page and then click “SHOW ME ALL”.
2. Under [1], enter the table number (e.g., S2801) and start typing your county or state name; then select the place name from the text that appears. Click GO.
3. Click on the table name on the next screen.
4. If you want to add another county or state for comparison, click Add/Remove Geographies above the table and either type in the place name or select the geography from the series of dropdown menus. After selecting your location click ADD TO YOUR SELECTIONS and then close the pop up window.
5. Note that you can often compare data from different years by selecting a different year from the list of available data on the left.

You can download the data by clicking the Download link, selecting “Use the data...”, and following the prompts to download and open the zip file. However, the download format can be cumbersome. It is often easier to copy and paste the data. Click in the white space above the table and, holding the left mouse button, drag down through the bottom of the table. Then copy (Ctrl+c) and paste the data in an Excel workbook.

If you want to explore additional Census data from the Factfinder link (<https://factfinder.census.gov>):

1. Click Advanced Search on the left of the page and “SHOW ME ALL”.
2. Click the Geographies tab on the left and follow the prompts to complete selections through the dropdown menus. You can select multiple counties using the Ctrl+click feature. When you’ve selected your location(s), click ADD TO YOUR SELECTIONS. To select both a state and a county, you’ll need to follow the prompts twice—once to select the state and once to select the county.
3. After the geography loads, click CLOSE in the top right corner of the popup window.
4. Select Topic from the tabs on the left.
5. Click a + sign to see more detail about each topic or sub-topic.
6. Click the subtopic of interest (e.g., rural/urban).
7. Click CLOSE in the top right corner of the popup window.
8. Click on the table of interest.
9. If you click on a table that does not have the information you are looking for, hit the Back button on your browser window and select a different table.
10. Note that you can often compare data from different years by selecting a different year from the list of available data on the left.
11. You can download the data by clicking the Download link, selecting “Use the data...”, and following the prompts to download and open the zip file. However, the download format can be cumbersome. It is often easier to copy and paste the data. Click in the white space above the table and, holding the left mouse button, drag down through the bottom of the table. Then copy (Ctrl+c) and paste (Ctrl+v) the data in an Excel workbook.

## Census County Business Patterns/Non-employer Statistics

To download data from the OPPE Data Links PDF: (<https://www.census.gov/programs-surveys/cbp/data/datasets.html>):

1. Click County Business Patterns: 2016 (or the year you need). The Complete files under Datasets on the next screen will give you text files. Thus it may be easier to transition into FactFinder for the business data.
2. Visit <https://factfinder.census.gov>.
3. Click Advanced Search and "SHOW ME ALL".
4. Click the Geographies tab on the left and follow the prompts to complete selections through the dropdown menus. You can select multiple counties using the Ctrl+click feature. When you've selected your location(s), click ADD TO YOUR SELECTIONS. To select both a state and a county, you'll need to follow the prompts twice—once to select the state and once to select the county.
5. After the geography loads, click CLOSE in the top right corner of the popup window.
6. Click Topics tab to the left. Then click Dataset and select 2016 Business Patterns (or another year). If you need nonemployer businesses instead of or in addition to employer businesses, select the 2016 Nonemployer Statistics under Datasets.
7. For a broad overview at the 2-digit NAICS, click either of the two tables available under **Table, File or Document Title** on the mail screen. (The table including the words By Employment Class Size includes information about business sizes).
8. If you want more detailed information about an industry, click on Industry Codes tab to the left and select your sub-industry. You will likely find it easier to Use the Industry Code Filter Options on the left of the pop-up screen to locate your industry.

## On the Map

<https://onthemap.ces.census.gov/>

To download data from the OPPE Data Links PDF:

1. Type in your place (e.g., county) name and click Search in the Search area to the left.
2. A list of places will pop up below the search box. Click your county or place name.
3. The place will be marked on the map. Click **Perform Analysis on Selection Area** in the text box by the marker.
4. Set your analysis settings and click Go. The Labor Market profile and the Destination analyses are both quite interesting.
5. To explore a different analysis or change settings, click **Change Settings** at the bottom left of the page, under the Legends.

See additional commuting data at

<https://www.census.gov/content/census/en/data/tables/2017/demo/geographic-mobility/county-to-county-migration-2013-2017.html>.

## Bureau of Labor Statistics

<https://www.bls.gov/data/>

To download data from the OPPE Data Links PDF:

For unemployment,

1. Visit <https://www.bls.gov/lau/tables.htm>.
2. Scroll to COUNTY DATA and click the TXT file (if you need to use the data, e.g., in excel, click ZIP).

3. Scroll or ctrl+f and type the county name to locate your county.

For occupational employment statistics,

1. Visit <https://www.bls.gov/oes/home.htm>.
2. In the On This Page area of the webpage, click OES Data. (NOTE: If you want to look at different years, click OES DATABASES, select the Tables icon, and follow the steps below.)
3. Option 1: Click Occupational Profiles and then select the occupation code to learn more about wages, employment and LQs for a given occupation. The HTML link goes to a new webpage, or the XLS link will download that data in a zipped Excel file.
4. Option 2: Click State and then select your state and an occupation group to learn more about wages, employment and LQs for a given occupation in your state.
5. Option 3: Click Metropolitan and nonmetropolitan area for information at a regional level.

## USDA National Agricultural Statistics Service

[https://www.nass.usda.gov/Data\\_and\\_Statistics/index.php](https://www.nass.usda.gov/Data_and_Statistics/index.php)

To download data from the OPPE Data Links PDF using Quick Stats:

1. Visit [https://www.nass.usda.gov/Quick\\_Stats/CDQT/chapter/1/table/1](https://www.nass.usda.gov/Quick_Stats/CDQT/chapter/1/table/1).
2. Enter the Census chapter to specify if you want US/State data or county level data.
3. Enter the Table number (if you click the link in the OPPE Data Links PDF, these will be preselected for you).
4. Select your state and county.
5. Click Update Grid at the top left (just to the left of Census Chapter).

For Ag Census Data, including county profiles and reports,

[https://www.nass.usda.gov/Publications/AgCensus/2017/Full\\_Report/Census\\_by\\_State/index.php](https://www.nass.usda.gov/Publications/AgCensus/2017/Full_Report/Census_by_State/index.php)

1. Select your state.
2. Select the desired product (e.g., State or County Reports, Profiles, Rankings). Note the profiles provide a good overview and make an attractive handout. The reports include a list of tables with data for all counties in the selected state. These tables contain more information than is available from the profile. You can also move into the query tool from the reports section.
3. Select your county.
4. You can export this data to Excel by clicking the CSV icon by Export Data at the top of the page. You can also View PDF.

There is also a good deal of additional data available through Quick Stats. If you are interested, explore it.

## Bureau of Economic Analysis

<https://www.bea.gov/data>

To download data from the OPPE Data Links PDF:

For GDP by county,

1. Visit <https://www.bea.gov/data/gdp/gdp-county>.
2. Scroll down to the Current Release area and click Data Table for GDP by County.

For other BEA data at the county or metro area, including handy profiles,

1. Visit <https://www.bea.gov/data>.
2. Click the Data By Place box (the whole box links to the next page with all geographies).
3. Select County, Metro, and Other Local Areas on the left side of the page.
4. Select your topic of interest to the right. Personal Income by County, Metro, and Other Areas and Employment by County, Metro, and Other Areas are both useful datasets.
5. Your selected topic pulls up a new page. Scroll down to select the Interactive Data area and then select a data link.
6. From the Table+ page, select a topic and subtopic. LOCAL AREA PERSONAL INCOME AND EMPLOYMENT includes much of the county level data.
7. Follow the interactive data prompts. These vary by subtopic. For example, select the county (CAINC30) or metro area (MAINC30) set or identify whether you want NAICS or SIC codes (depending upon the data years you are using). After making selections, click Next Step to make the next round of selections. Note that you can select multiple geographies or statistics within a table by using the ctrl+click function. You can also select different units of measure (e.g., levels or percent change) and multiple years.
8. You can either download the data using the icon in the top right or simply click in the white space above the table and, holding the left mouse button, drag down through the bottom of the table. Then copy (Ctrl+C) and paste the data in an Excel workbook.

If you are looking for a quick run down of economic facts for a region, BEA's BEARFACTS page is a convenient tool to compare your county with your state and the US on key economic metrics. Visit <https://apps.bea.gov/regional/bearfacts/>. Select your state and county from the drop down lists or the map.