



By the Numbers: Finding Data on the Internet

Julie N. Zimmerman
Department of Community and Leadership Development

Updated: February, 2009

COOPERATIVE
EXTENSION
SERVICE



UNIVERSITY OF KENTUCKY
College of Agriculture

It used to be that finding data meant going to the library. Today, many agencies and organizations post their data directly to the web. As a result, accessing data on your county is only a click away. This publication is intended to help you find data online, help you figure out what to do with it once you gather it, and what to watch out for. If you are not yet comfortable accessing the web, we are always there to help.

WHERE DO I BEGIN?

With so much data available online, it is easy to quickly feel overwhelmed. Often times, you can find yourself asking, where do I begin?

Usually, when we go looking for data, it is for a particular project, group, or purpose in mind. It is important to let that purpose be your guide. To help out, there are some questions that can help you narrow your focus in your search for numbers.

- ✓ *What do I want to know?*
- ✓ *Why do I want to know it?*

Answering these two questions can help you distinguish between numbers that are useful and numbers that, while they are interesting, may not be the most useful ones for your particular project.

Another way of focusing your search is to ask yourself:

- ✓ *How does knowing this number help us make better decisions?*

While the focus in this publication is on secondary data, it is also important to remember that they are only one kind of information. Other sources of data (such as local organizations) or other kinds of information (such as conducting a survey or focus groups) may be more useful for your particular purposes.

FINDING DATA

When it comes to finding data online, you will generally encounter two different kinds of websites: original source websites and compilation websites.

Original source websites are those websites that are published by the organization or agency that produced the data in the first place. Most often, we think of these in terms of government agencies (such as the Census Bureau) because they produce a lot of the data we

commonly use. But, other groups may also produce their own data.

The good news about original source data websites is that they tend to contain a lot of data, they are likely to have the most up-to-date data, and they can have the most levels of geography (states, nation, counties, cities, etc.). The bad news is that because they contain so much data, they can be a little more challenging to navigate. For instance, they are more likely to be dynamic websites with drop-down boxes and many options from which to choose. Still, once you get the hang of it, original source websites are a great resource.

The second kind of website you will encounter are **compilation websites**. These websites usually contain data from a variety of different sources that the organization compiled together in one place and usually for a specific purpose. Kids Count or economic development websites are good examples.

The good news about compilation websites is that you can often find data from many different sources in one place. These websites can also be easier to navigate as they are more likely to be static websites where you click directly onto the page with the data. The bad news is that since compilations must be gathered together by someone, and that takes time, these websites may not have the newest and most up-to-date data that are available. If you think there may be more recent data available, check the list of sources they used and then go to the original source website.

At the end of this publication is a list of selected Kentucky and national websites with commonly used data. You can also find these as hyperlinks in the "Kentucky: By the Numbers" section of our SNARL website (<http://www.ca.uky.edu/snarl>). Just click on "Links to Additional Data Sites."

COMMONLY USED WEBSITES

One way to keep track of data websites is to distinguish between those that are specific to Kentucky

and national data websites that have data for all of the states in the country.

In Kentucky, there are many useful websites. One of these is “Kentucky: By the Numbers.” This is a series of county profiles, produced on an occasional basis, which are developed to support local decision making. They contain county level data for all 120 Kentucky counties on a number of social, demographic, and economic themes. Some of them also provide maps. The data sheets are produced periodically through the Department of Community and Leadership Development as part of the Kentucky Cooperative Extension Service. You can find these in the “Kentucky: By the Numbers” section of our SNARL website. Just click on “Data Series.”

<http://www.ca.uky.edu/snarl>

Another useful website for Kentucky data is the Kentucky State Data Center at the University of Louisville. (Every state has its own State Data Center.) Here you can find easy access to Census and other data for Kentucky.

<http://ksdc.louisville.edu/>

The decennial Census is a commonly used source of data. American Factfinder is the way to access this data online. On the Factfinder homepage, just click on “data sets.”

<http://factfinder.census.gov>

Another resources from the Census Bureau is called Quickfacts. This is a good one-stop shop for some of the most requested data for states and counties.

<http://quickfacts.census.gov/qfd/>

There are many more websites and sources located on the last page of this publication. If you are still not sure where to find the data you are looking for, a good place to check is called Fedstats. This website is intended to help people locate data produced by the federal government.

<http://www.fedstats.gov>

Sometimes, finding the numbers on a data website can seem daunting. To help you get started, we have developed some easy to use graphic illustrations for some of the commonly used websites. You can find these under “Publications” in the “Kentucky: By the Numbers” section of our SNARL website.

I FOUND THE DATA, NOW WHAT DO I DO?

Locating data on your county is only just the beginning. With so much data available, it is easy to

get lost amongst the numbers. For instance, once you found the data, it may not be the format most useful for your purposes. For example, finding out that in 2000 your county had 4,437 jobs in retail, while informative, does not tell you if that is a large part of all the jobs in your county.¹

One way to deal with this is to calculate the *distribution*. In this case, it would be the *percent of all jobs* that that are in the retail sector. To do this you just need two numbers; the number of jobs in retail and the total number of jobs in your county. Both of these need to be for the same point in time or year.

To calculate the percent, you take the number of jobs in retail and divide by the total number in jobs. It looks like this:

$$\frac{\text{the number of jobs in retail in county}}{\text{the total number of jobs in county}} = \text{rate of retail employment in your county}$$

The result should be a number less than one. To make this a percent, simply take the rate and multiply by 100. That way you will know the percent of all jobs that are in retail.

For example, in 2000 our county had a total of 22,212 jobs and 4,437 of these are in retail, this means that 20.0% of all the jobs in this county are in retail.

Another common way to look at data is to look at change over time. There are two ways of doing this: aggregate and percent change.

Aggregate change simply means the total change or the total amount something increased or decreased across two points in time. Let’s look at our retail example again.

Suppose that in 2000 there were 4,437 jobs in retail in your county but, in 1995, there were only 3,826 jobs in retail. To find the aggregate change, all you do is take the number of jobs in 2000 and subtract the number of jobs in the earlier year of 1995. In this case, our county has added 611 jobs in retail over the 5 year period.

Percent change is another way to look at the change in something over time. For example, while it may be useful to know that 611 jobs in retail were added to your county’s economy, you may also want to know if that is a large increase or not, especially if you want to compare it with another county, region or the state. To find the percent change in retail jobs for our example it would look like this:

¹ The data used in this example are for Calloway County, Kentucky.

the number of jobs in 2000
minus
 the number of jobs in 1995
then divide by
 the number of jobs in 1995

Another way of remembering this is:

(new – old) / old

The result should be a number that is less than one. This is the rate of change and it can be positive or negative. To turn this into the percent change, simply multiply by 100. In the case of our retail example, our county had a 16.0% increase in the number of jobs in retail.

If you want to know how to do more with numbers, we have links to other publications that can help out. If you look in the “Kentucky: By the Numbers” section of our SNARL website (<http://www.ca.uky.edu/snarl>), you can click on “Publications” to find the links.

WHAT TO WATCH OUT FOR

Perhaps because there is so much data available, we can have high expectations that we will find just what we need. But more often than not, decisions will have to be made. Here are some key questions to ask yourself before you use the data you have found.

Who collected it?

While federal agencies are a common source of data, other groups also collect and distribute data. Regardless of the source, data are collected with a particular purpose in mind. This can affect the type and kind of data you find on any particular website.

Why was it collected?

Why data are collected in the first place can also impact what you find. For example, the organization called Kids Count is interested in tracking the well-being of children and so their data focus on children. Likewise, federal agencies collect data that reflect their particular missions. For instance, you will find health data at the Department of Health and Human Services and agriculture data at the Department of Agriculture.

What is the time frame?

If you find data that show change over time, the dates that are selected can affect the results. If one or both of the points in time selected were unusually high or low years, this could make it seem that there has

been more change than what is really the case. You should keep this in mind for selecting your own data as well.

How was it measured?

When you are selecting data, always make sure you understand how the data were defined. For example, there are different ways of measuring income. Some definitions include more things as income than others. As a result, you can find different numbers depending upon which definition is used. All of the numbers are accurate, they are different because the definitions were different. To learn more, see our publication “What Counts? Measuring Jobs, Income and Unemployment.”

What can I live with?

Sometimes we can be surprised about the data we can locate. Other times the data we want don’t exist, are not in the most useful format, or are not as up-to-date as we would like. For example, Census data are only available once every ten years.

Sometimes we may want information that is more detailed than for the county as a whole. For example, suppose you are planning the routes for a mobile food bank and you want to know where in your county most of the families who live in poverty are located. The place to find this is in the census. It is called data by block group or census tract.

Finally, sometimes the data we need are not available because they are ‘undisclosed.’ When you find data missing because it is undisclosed, that means that the person, business, or whatever unit, is identifiable. As a result, they will not disclose that particular piece of data. This is especially an issue with county level economic data.

SUMMARY

The web has opened up the world of data. Now, you can access information on your county, or any place in the country, at the click of a mouse. While data are more easily available than ever before, this never replaces the help all of us in Cooperative Extension can provide. If you do not feel comfortable with the web, get lost or confused as to where to find the data you are looking for, or are unsure about what you have found, always feel free to call the Cooperative Extension Service.

Kentucky: By the Numbers is a program of the Kentucky Cooperative Extension Service in the Department of Community and Leadership Development at the University of Kentucky. Primarily known for the data series by the same name, the program also provides publications and other resources for those interested in finding data on their county. Data and resources are available on Kentucky: By the Numbers section of the SNARL (<http://www.ca.uky.edu/snarl>) website. For more information contact your local Cooperative Extension office or Julie N. Zimmerman, Department of Community and Leadership Development, 500 Garrigus Building, University of Kentucky, Lexington, KY 40546 or call (859) 257-7583.

Finding Data on the Internet: Selected Kentucky County Data Sites

(Updated: February, 2009)

Kentucky Sources

KENTUCKY: BY THE NUMBERS

Info available: In addition to the data series “Kentucky: By the Numbers,” on the SNARL website, you can also find information links to other data websites as well as useful Community publications

<http://www.ca.uky.edu/snarl>

KENTUCKY STATE DATA CENTER

Info available: Census data, tract maps, and graphs for area development districts.

<http://ksdc.louisville.edu/>

WORKFORCE KENTUCKY

Info available: Labor force data, unemployment rates.

<http://www.workforcekentucky.ky.gov/>

KENTUCKY CABINET FOR ECONOMIC DEVELOPMENT

Info available: Community information, industrial site and building information for cities and counties. Click on “Community Profiles.” For more data, click on “Data Center” and select a category.

<http://www.thinkkentucky.com/>

KENTUCKY KIDS COUNT

Info available: Data profiles on indicators of child well-being including economic, education, and social data.

http://www.kyouth.org/KIDS_COUNT/

or:

<http://ksdc.louisville.edu/1kidscount.htm>

KENTUCKY COUNTY HEALTH PROFILES

Info available: Produced by the Kentucky Cabinet for Health and Family Services, county data profiles contain many health and social indicators.

<http://chfs.ky.gov/dph/epi/cohealthprofiles.htm>

National Sources

AMERICAN FACTFINDER

Info available includes: Click on “data sets” to find 2000 Census, 1990 Census, Economic Census, and population estimates, or the American Community Survey.

<http://factfinder.census.gov>

QUICK FACTS

Info available: Profiles using data from a variety of sources including the 2000 Census, the Economic Census, maps.

<http://quickfacts.census.gov/qfd/>

BUREAU OF ECONOMIC ANALYSIS

Info available: Provides data on employment and income by economic sector. To find county data, click on “State and Local Area Personal Income.”

<http://www.bea.gov/regional/index.htm>

NATIONAL AGRICULTURAL STATISTICS SERVICE

Info available: For “Quick Stats,” click on “Data and Statistics.” For the current and previous censuses of agriculture, click on “Census.”

<http://www.nass.usda.gov/>

POVERTY ESTIMATES

Info available: Most recent county estimates of individuals living in poverty, children in poverty, and median income.

<http://www.census.gov/hhes/www/saipe/>

COUNTY BUSINESS PATTERNS

Info available: Data on businesses by state, county and zip code.

<http://censtats.census.gov/cbpnaic/cbpnaic.shtml>

BUREAU OF LABOR STATISTICS

Info available: Local unemployment rates and “at a glance” compilations of labor and economic data.

<http://stats.bls.gov/>