

Understanding & Utilizing Data

Source: Adapted from The Community Tool Box - <https://ctb.ku.edu/en>
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You're working -- and working hard -- for a cause that you believe in. Maybe you want to help others avoid the struggles you went through, so you became part of a coalition that helps children. Or maybe you were worried about the future of your community, so you attended a dialogue on violence -- and now, somehow, you find yourself running the organization.

Whatever the problem you are working on happens to be, you know how important it is. You've seen the consequences; and, to the extent possible, you don't want to see them anymore. But how can you convince other people of the problem's importance? That's where collecting information about the problem comes in.

One option for convincing others about a problem is to tell stories or provide information about how the problem affects the quality of people's lives. People need to have an understanding of the human cost of an issue. Telling the story of how Shelly had no food in her house and stayed cold because there was no heat can certainly help increase awareness of the problem of poverty and food insecurity, and may help you garner support for an organization.

But descriptions alone don't tell how extensive the problem is. If you can tell people just how many "Shellys" exist in your community compared to other communities, then that can be very helpful, for a variety of reasons. A **quantitative** approach, using numbers, charts, graphics, and infographics, helps you be very specific and accurate about the level of the problem both in your community, and in other communities as well. It helps you compare the problem across geographic regions and across periods of time.

Why should you collect information about the problem?

All of the quantitative material may overwhelm us at first. But, having relevant, factual information allows you to validate your words, define the situation in numbers and percentages, and equip us to have meaningful dialogue and decision-making processes. Numerous reasons will drive our need to collect and analyze data. Most importantly, the process provides the group with:

- **Knowledge.** Reality talks. Knowing the facts is a stark way of determining the size of the gap between your vision of a healthy community and the reality in which you live. Gathering information from the time period before your organization got started (also known as baseline data) is an excellent way to show the magnitude of the problem.
- **Credibility.** If you are able to talk easily in a casual conversation about the exact numbers of people affected by the issue you are involved in, you come across as knowledgeable, serious, and well organized. Writing down those same figures (in greater detail, of course) as part of a grant application or project summary for potential funders and evaluators says that you are a well-run group who can get the job done.

- *Awareness.* Increasing a group's awareness is the first step for meaningful change. You can use the information you have found to raise community awareness of a number of things: how serious the problem is, how well (or how poorly) your community is doing in relation to other communities or to the nation as a whole, and last but not least: how well your coalition is attacking the problem at hand.

How do you collect this information?

How do you go about finding this information? There are two ways to go about it: 1) you can use information that already exists; or, 2) if what you are looking for just doesn't seem to exist, you can collect new information yourself.

Based on materials prepared by The Community Toolbox, a service of the University of Kansas, the following ten steps provides a guide for efficient data collection.

1. Agree on the value and purpose of the information that you will collect

- Why, exactly, does your group need this information? How will you use it? Will it be shown only to members of your organization, or do you want to make it public?

2. Determine when you want to use this data

- *For what time period do you want to find information?* Often, it's helpful to look for information either *right now* or from the time when your coalition first got started. This latter information, sometimes known as **baseline data**, tells the scope of the problem before you started work. You can continue to track how things have changed, and determine how effective you have been.
- Additionally, many organizations find it a good idea to collect information on a regular basis, such as once a year. This helps you to keep on top of the latest information (always helpful for grant funders, as well as for your constituents), as well as to determine your effectiveness. This also lets you examine the trends important to your group as they change from year to year.
- *When do you want to make this information public?* Often, you want to make the information known right away. Other times, however, you might want to wait. Maybe you would like to announce it in conjunction with a national/international event that is happening, in hopes of gathering even more media coverage.

3. Determine exactly what you want to know

- What, exactly, do you want to know? Are you just looking for statistics, or do you want to collect some qualitative information (life stories, local heroes, narrative information that will enrich the picture painted by the numbers.) as well?
- Do you want to determine *incidence rate* (the number of **new cases** in the population during a given time), or prevalence rate (**total number of cases** that are present in a particular population at a given time), or both? And on which issues?
- The more precise you are in your thinking at the beginning, the easier you will find your search.



4. Determine who will find the information

- Will it be you? A staff member? A volunteer? A consultant?
- Do you want one person to focus on collecting the data, or do you want to have several people working on it? Brainstorm who in your organization has experience in collecting data, and also who might be interested in doing so. And do they have enough time to do the job?

5. Identify possible sources of information

- Because there are numerous sources of information, always evaluate the reliability of the source and examine the accuracy of the data retrieved from the source. Sometimes, it will be important to apply the principle of triangulation or confirming any conclusion by checking more than one data source. Utilize recognized and respected sources such as:
 - *Virginia Labor Market Information (LMI) website updates its Community Profiles each month.*
 - *The state or county health department staff can help you determine health indicators on a variety of issues.*
 - *The state and local human service department should be able to tell you the number of recipients of Medicaid, and food stamp program participants.*
 - *Hospital studies on admission and exit records exist and can give you information on teen fertility, causes of death, etc. Depending on where you live, some of the data may not be part of the public record, but it may be possible to purchase some of it, or arrange to use it in some form.*
 - *Census data:* Demographic information is available for your community and the United States as a whole. This information can be found on Bureau of Census web site: <http://www.census.gov>. Many states have similar information on their own web sites as well.
 - *Police records* can tell you crime rates and the incidence of problems such as domestic violence or motor vehicle accidents.
 - *Chamber of Commerce data* discusses job growth, the unemployment rate, etc.
 - Nonprofit service agencies, such as the United Way or Planned Parenthood, generally have records on a variety of different issues. Often, these agencies have already conducted surveys and found the information you need.
 - *School districts* can tell you graduation rates, test scores, and truancy rates for your school and others. For comparative figures across school districts, check with your state department of education.
 - *Centers for Disease Control* reportable disease files can give you national information on the rates of many diseases, such as AIDS. Its web site is located at: <http://www.cdc.gov>.
 - *Your reference librarian* is often a very helpful person.
 - Other professional contacts you have can lead you to sources of information particular to your interest.
 - *Statistical Abstract of the United States* is a good general source in print for national information. It's done annually, and is available in most local libraries.
 - *Specialized local, statewide, or national organizations* may help. For example, if you were interested in Alzheimer's disease, or tree planting, or lead poisoning, you would want to track down and consult with an organization specializing in that field. (Review your library's Gale's [Encyclopedia of Associations](#) or the website of the individual association).
 - Other *web pages* provide resources on an array of issues (see Appendix A).

6. Set limits as to how much information you want to collect

- Too much information will be just as much of a problem as not enough. Decide on the limits of what you are going to collect, or you will just get lost among the stacks of data that have piled up on your desk.

7. Collect the data

- If you have done all of the preparatory work up to this point, this is the easy part. List the sources of data you have found, both in order of those you think are best and those you think are easiest to find. Start with those, and then set to work.

8. Identify and fill gaps in your knowledge

- After you have finished collecting, it's time to take a hard look at the information you have found. Were you able to determine everything you were looking for, or did you not find some important data?
- Perhaps the information that you have found has made you realize there is other helpful information that you didn't originally research or that the information is not available and additional work will need to be done to collect the data.

9. Compare the findings with the current reality.

- Data provide details of past occurrences. Because things change in a community faster than the data are collected, compiled, and analyzed; you must compare what you discovered with what is true now. This step is sometimes referred to as "ground truthing" where the information is obtained directly as empirical or observed evidence and compared to the data collected from existing sources.

10. Compare data for your community with that of other communities or the nation . . . or trend out your own community's data over time.

- It's good to put the information you have found in context, either positive or negative. Saying, *The level of violent crime in our community is twice the national average*, helps put the magnitude of the problem you are facing in the proper perspective for the rest of the community. And on the other hand, if you can say, *The rate of student graduation from high school in our city has increased from 72% to 84% between 2010 and 2016*, is a great way to celebrate your community's strengths.

Collecting new information

Usually, when you are trying to determine facts about the problem, the information is already out there, in one form or another. If you are absolutely sure that the information you need just isn't there, it's time to create it yourself. To do so, you'll still need to go through the ten steps listed above, except for number five; but in addition, you will want to do the following:

- Identify the method of collecting information that is best suited to your purpose. Different methods that are often used include:
 - **Surveys** are one of the best ways to find the quantitative information that your organization may want to know. They can be written, face-to-face, or done by telephone.
 - **Focus groups, public forums, listening sessions, and community dialogues** are all good ways to find qualitative information that will enrich your quantitative data.



Decide if you want to inform the public of what you are doing

If you decide that it is tactically wise, let people know what you are doing from the start. (You will probably want to update them during and after the process as well.) You might consider writing a press release to do so. Include key facts that you have gathered from earlier data. For example, you might say, "*In 2010, the teen pregnancy rate in Godnow County was 26 girls out of every 1000, or 2.6%. The Godnow County Teen Pregnancy Prevention Program is in the process of finding out how this figure has changed in the last eight years.*"

Remember, when you tell people what you are doing, they will usually have questions. So be prepared with a clear process for responding to any queries or concerns that might arise.

Train the people who will be collecting the information

Sending poorly trained staff members or volunteers to collect new information can cause serious problems and lead to results that are unhelpful at best. At worst, this can invalidate all of the time and effort you spent trying to determine the information. The manner in which questions are asked, who is asked, and even when they are asked can have a huge impact on the results you receive. So train your information collectors before you start.

Collect and tabulate your data

Although this can take a while, if you have done all the steps leading up to this, you're once again at the easy part. Good luck!

Use and publicize your findings

Even if you decided during the planning process to delay publicizing your findings, you will discuss them with members of your group. You might ask everyone at a staff meeting to talk about how this new information will change their individual projects, or work together to rewrite the project plan.



These findings should be integrated into the project plan and, hopefully, used to provide the justification for the importance of a project's goals and strategies. The data are essential to designing a measurement and accountability system for reporting on the project's impacts.

What are the limitations of using this information?

Of course, knowing the incidence and prevalence of a problem is certainly not a cure-all for solving all of your coalition's woes, nor is it the only information worth collecting. In the worst case, the information can actually mislead people who are trying to understand the problem. As Mark Twain was fond of saying, "*There are lies, damn lies, and statistics.*" When you are collecting or speaking about your data, be sure to:

- Obtain your data from enough people to make it worthwhile. Or, if you are using previously gathered information, find out how many people were studied. As a rule of thumb, don't determine a rate from a population of less than 20 people. There just aren't enough people for your data to be credible. If you did a voluntary survey on drug use among high school students and only got 5 respondents, your results might vary widely from the truth. For example, you may have had 5 students who don't use drugs at all, (There are no drugs in our schools!) or maybe four of the students were friends who all smoke marijuana regularly (80% of our students use drugs on a regular basis!). Probably neither of these statistics is close to the truth. The sample population simply wasn't large enough to get a true estimate.

- When you are giving a rate, never forget to give it, as the definition states, in terms of another measured quantity. Just saying, 43 students are smokers, doesn't give the listener enough information to really understand the problem. Is it 43 students out of 50? Or out of 5000? Always be sure to give your information in context. A confused listener is not someone who will be helpful to your cause.
- As helpful as statistics can be, they don't ever tell the whole story. People relate to individual stories: the friendly neighborhood mechanic who died of lung cancer, the fourth grader who was killed in a drive-by shooting. Just the facts might be good police work; but for your organization's work, never forget the people behind those statistics.

To sum it up

This work is hard. You will invest a lot of time and effort into identify, gathering, compiling, and analyzing information. The most important step is that you use the information you have found to further your cause. There's no question that changing our communities for the better is tough. But by being able to identify and describe the magnitude of the problem, you've made a powerful first step towards becoming agents of change.

References

Brownlee, T.S. (n.d.) *Leading a community dialogue on building a healthy community*. In *Community Tool Box*. <https://ctb.ku.edu/en/table-of-contents/assessment/assessing-community-needs-and-resources/community-dialogue/main>



Appendix A

Data Resources for Community Development

developed by Kasey J. Martin, Ph.D.
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To access the websites, please copy and paste the url.

Economic Data

- Bureau of Labor Statistics <http://www.bls.gov/eag/eag.va.htm>
- Local Area Unemployment Statistics (LAUS) www.bls.gov/lau/lauov.htm
- Quarterly Assessment of Employment/Wages
http://data.bls.gov/location_quotient/ControllerServlet
- Virginia Labor Market Information <https://data.virginialmi.com/vosnet/Default.aspx>
- Virginia performs
<http://vaperforms.virginia.gov/indicators/economy/employmentGrowth.php>
- Weldon Cooper Center <https://coopercenter.org/services/research-analysis>
- Virginia's Economic Forecast by the Thomas Jefferson Institute
<http://www.thomasjeffersoninst.org/files/3/2015%20EconForecast%20FINAL.pdf>
- Virginia Economic Indicators <https://data.virginialmi.com/gsipub/index.asp?docid=280>
- Virginia performs
<http://vaperforms.virginia.gov/indicators/economy/employmentGrowth.php>
- Virginia economic development indicators compared to other states
<http://data.yesvirginia.org/compare/CompareVa>
- Economic Profile System: <http://headwaterseconomics.org/tools/economic-profile-system/about>
- STAT America (Counties in Profile, Innovation Index, Measuring Distress, Industry Clusters, Occupation Clusters) <http://statsamerica.org/>
- Your Economy business activity tool <http://www.youreconomy.org/>
- County Business Patterns and Nonemployer Statistics
<https://www.census.gov/data/developers/data-sets/cbp-nonemp-zbp.html>

- Virginia Superintendent of Education Annual School Report Card
http://www.doe.virginia.gov/statistics_reports/school_report_card/
- Geography of Jobs <http://tipstrategies.com/geography-of-jobs/>

Industry Data

- Virginia Tourism Corporation <https://www.vatc.org/research/>
- Virginia Department of Agriculture and Consumer Services -
<http://www.vdacs.virginia.gov/markets-and-finance-agriculture-facts-and-figures.shtml>
- National Agricultural Statistical Service
https://www.nass.usda.gov/Publications/Ag_Statistics/ -
https://www.nass.usda.gov/Statistics_by_State/
- Broadband Access: <http://www.wired.virginia.gov>

Demographic Data

- Virginia Community Profiles <https://data.virginialmi.com/gsipub/index.asp?docid=342>
- Attainment and School Enrollment (select browse data sets)
<https://www.census.gov/quickfacts/VA>

- Adult Literacy Rates <http://www.doe.virginia.gov/instruction/adulted/> and <https://literacyfacts.wordpress.com/category/virginia-statistics/>
- Education by County <http://www.ers.usda.gov/data-products/county-level-data-sets/education.aspx>
- County/State Health Rankings <http://www.countyhealthrankings.org/> o Measures: health behaviors, clinical care, social & economic factors, & physical environment
- Health Statistics (statewide) <http://healthyamericans.org/state/>
- Rural Assistance Center <https://www.raonline.org/topics/statistics-and-data>
- Rural Underserved Counties <http://www.consumerfinance.gov/guidance/>
- The National Extension Web-mapping Tool (NEWT) <https://www.mapasyst.org/newt/>

Social Data

- Poverty maps https://www.census.gov/data-tools/demo/saipe/saipe.html?s_appName=saipe&map_yearSelector=2016&map_geoSelector=aa_c
- Distressed communities index <http://eig.org/dci>
- Measure of America Opportunity Index <http://opportunityindex.org/#4.00/40.00/-97.00>
- Environmental Justice map <https://ejscreen.epa.gov/mapper/>
- Persistent Poverty Counties www.ers.usda.gov/data-products/county-typology-codes.aspx
- Poverty & Equity <http://povertydata.worldbank.org/poverty/home/>
- Poverty (census) <https://www.census.gov/hhes/www/poverty/data/>

Housing Data

- American Housing Survey www.census.gov/programs-surveys/ahs
- Fair Market Rents (FMRs) www.huduser.org/portal/datasets/fmr.html
- Federal Housing Finance Agency <http://www.fhfa.gov/DataTools/Downloads/Pages/Rural-Areas-Data.aspx>
- Home Mortgage Disclosure Act (HMDA) - www.consumerfinance.gov/hmda/explore
 - www.ffiec.gov/hmda
- Housing Assistance Council <http://www.ruralhome.org/>
- Housing Population http://factfinder.census.gov/faces/nav/jsf/pages/community_facts.xhtml
- Housing Profiles <http://nlihc.org/library/housingprofiles> - Congressional Districts & States
- HUD Datasets http://www.huduser.gov/portal/pdrdatas_landing.html
- HUD User www.huduser.gov/portal/
- Income Limits www.huduser.gov/portal/datasets/il.html
- National Housing Preservation Database www.preservationdatabase.org
 - <http://nlihc.org/library/other/preservation>
- National Low Income Housing Library <http://nlihc.org/library>
- Out-of-Reach by State (Housing Affordability by Hourly Wage) <http://nlihc.org/oor/virginia>
- Physical Inspection Scores <http://www.huduser.gov/portal/datasets/pis.html>
- Picture of Subsidized Households www.huduser.gov/portal/datasets/assthsq.html
- Virginia Housing Information <http://www.housingvirginia.org/sourcebook/>
- Location Affordability Portal <http://www.locationaffordability.info/lai.aspx?url=download.php>

Census Data

- American Factfinder <http://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml>
- Quick facts <https://www.census.gov/quickfacts/fact/table/US/PST045217>

Government sites

- Virginia Association of Counties <http://www.vaco.org/>
- Virginia Municipal League <http://www.vml.org/>
- National League of Cities <http://www.nlc.org/build-skills-and-networks/resources/cities-101/city-structures/forms-of-municipal-government>
- Homeland Infrastructure Foundation-level Data <https://hifld-dhs-gii.opendata.arcgis.com/>
- Federally Qualified Health Centers <http://findahealthcenter.hrsa.gov/#>
- Head Start Center Locations <http://eclkc.ohs.acf.hhs.gov/hslc/data/center-data>
- U.S. Government open data site <https://www.data.gov/>
- The Opportunity Project <http://opportunity.census.gov/#build>
- Jobs Proximity Index <https://celebratingcities.data.socrata.com/HUD/Jobs-Proximity-Index/cj8r-an49>

Evaluation Resources

1. Community Development Toolkit
<https://www.esmap.org/sites/esmap.org/files/Community%20Development%20Toolkit.pdf>
 2. Community Development Resource Toolkit <https://www.commerce.gov/file/departement-commerce-community-development-resource-toolkit-2016>
- Critical Analysis of Economic Impact Methodologies
<http://www.crcworks.org/econimpacts.pdf>
 - Community Guide to Development Impact Analysis
https://gis.lic.wisc.edu/wwwlicgf/shapingdane/facilitation/all_resources/impacts/analysis_socio.htm
 - Understanding Community Impacts: A Tool for Evaluating Economic Impacts from Local Bio-Fuels Production <http://www.joe.org/joe/2008december/a2.php>
 - Analyzing the Economic Impacts of Transportation Projects
http://www.ctcase.org/reports/CONNDOT_econ/CONNDOT_econ.pdf

Attachment B

Public Engagement Tools

- **See, Click, Fix** <http://seeclickfix.com/> (usually for communities to report community-based issues)
- **Place Matters** <http://placematters.org/>
 - A Denver based non-profit think tank for civic engagement and process in planning. Our work creates opportunities for informed, inclusive decision making in the planning of vibrant cities and communities.
 - Utilizes interactive survey tools.
- **NationBuilder** http://nationbuilder.com/how_is_nationbuilder_different
 - NationBuilder is a unique nonpartisan community organizing system that brings together a comprehensive suite of tools that today's leaders and creators need to gather their tribes.
 - A community organizing system (COS) that empowers you to run your entire site, supporter and prospect database and donor recruitment and finance tracking from one site. You don't need an extra content management system (CMS) with NationBuilder - it is one, with [rich customizable themes](#) that make it like a WordPress for organizing. NationBuilder allows you to quickly build a slick public-facing website complete with blog pages, calendars with Google maps, petition pages, customizable surveys and [much, much more](#). Its got a whole social customer relationship management (CRM) built right in for keeping track of everything from mail and face-to-face contacts to your social media. And yes, we use NationBuilder the platform to run NationBuilder the software company.
- **Place Speak** <https://www.placespeak.com/>
 - A location-based, civic engagement platform.
- **Community Heart & Soul** <http://www.orton.org/what-we-do/what-community-heart-soul>
 - Developed by the Orton Family Foundation and based on the belief that the strength of a community lies in the hands and hearts of the people who live there.
 - Designed on three principles: involve everyone, focus on what matters, and play the long game. Helps small cities and towns succeed by identifying and strengthening those characteristics that matter most to the people who live there.
 - A field guide is available for download.



Guided by the **Soul of the Community** report <http://www.soulofthecommunity.org/> “a three-year study conducted by Gallup of the 26 John S. and James L. Knight Foundation communities across the United States employing a fresh approach to determine the factors that attach residents to their communities and the role of community attachment in an area's economic growth and well-being.”



- **Story Circles**
 - <http://www.planningtoolexchange.org/tool/story-circles>
 - An inclusive and comfortable way to discover common values in a community. Everyone can share stories that connect them to their town no matter their age, job, education, or how long they've lived there.
 - https://www.orton.org/sites/default/files/resource/1728/Handbook%20QG_STORY%20CIRCLES_051011_FINAL.pdf
- **StreetSeen** <http://www.planetizen.com/node/66857>
 - An easy to use public engagement tool, developed by Ohio State University, that helps you to understand the visual preferences of the public?
 - StreetSeen (<http://streetseen.osu.edu> - <http://streetseen.osu.edu/about>), a free online tool allows planners and others to simply construct and deploy visual surveys.
 - [Google Street View](#) allows people to explore places across the world through 360-degree street-level images. Google Street View provides a great opportunity to study and understand our cities. StreetSeen extends Google Street View in order to allow planners to experiment in evaluating cities.
- Emails by topic
- County websites
- Community Forums; Focus Groups, Listening Sessions
- Game-based Planning using blocks and symbols
- Door-to-Door collections of stories and ideas
- Newspaper articles
- Newsletters from Board of Supervisors
- Letters to the newspaper editor
- Existing events . . . community centers, community meetings, homeowners associations

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