

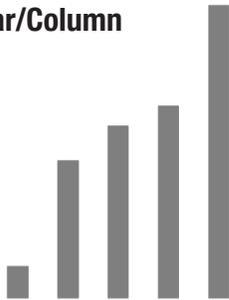
Strategies for Making Memorable Graphs

1. Choose Your Message and Graph Type

Choose the message you want your graph to support. A description of a compelling fact or trend might lead to a powerful image. Try different ways of showing a percent, ratio, or raw number. Sharp increases and simple ratios make striking visuals.

Choose a graph type that makes the most sense for your data. Here are some common types:

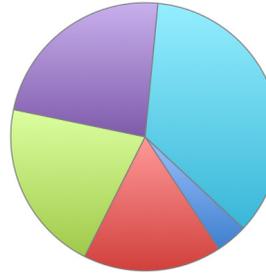
Bar/Column



Compares amounts in different categories.

Example:
Levels of PAHs in different soil samples.

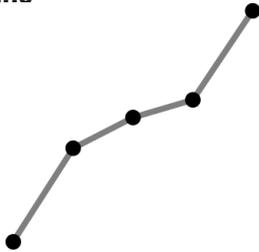
Pie/Circle



Compares parts of a whole, everything adds to 100%.

Example:
% of expenses in different categories of a city budget.

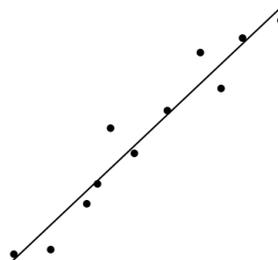
Line



Shows changes over time or distance.

Example:
Monthly arsenic levels in a well for a year.

Scatterplot



Shows a possible relationship between two different measurable things.

Example:
Lead levels in a person's blood vs. distance from the person's house to a junkyard.

Infographic

Pick One of the kids:
Your nephew • Your neighbor • Your child's best friend • Your goddaughter



You just picked the next child to get asthma.
Asthma rates in Dorchester are 1 in 4.
Call the Boston Urban Asthma Coalition to learn more and take action.

Uses icons or an image to show a ratio or relationship.

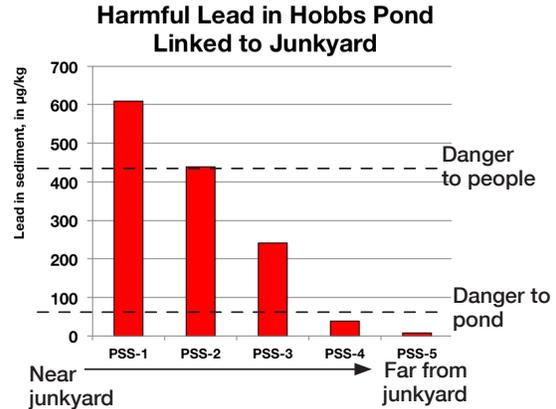
Example:
Community members in Boston did a health survey and found that 81 out of 355 children had asthma. They found this was about the same as one in four.

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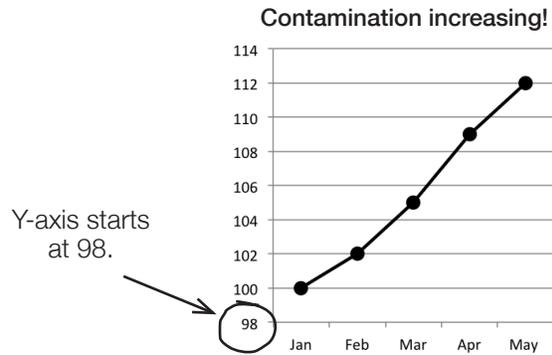
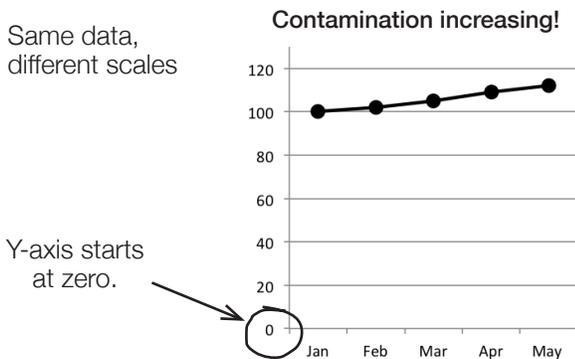
2. Make a Rough Draft

Choose a title that sums up what's on the graph, and why the reader should care.

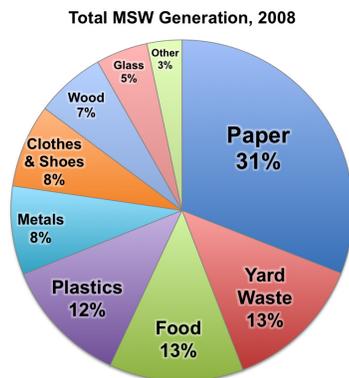
Label it. Make it clear what each axis and graphic represents. Label key points to give the reader context.



Choose a scale that makes it clear how the data support your message. However, if it looks like you're exaggerating, it could hurt your credibility.



Put your data in order. Most data sets will have a natural order, from earliest to latest, or nearest to farthest. If there's no natural order, sort the data from largest to smallest.



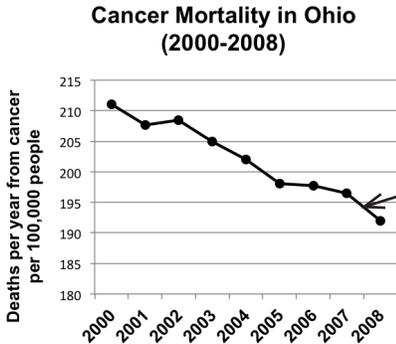
- Categories in order by size
- Proportional word size
- Labels on the chart, not in a legend
- Numbers included

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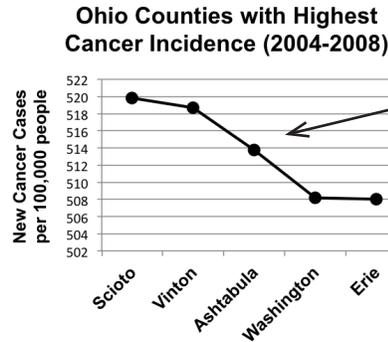
3. Avoid Pitfalls and Make Trade-Offs

Check all the parts of the graph for meaning.

A spreadsheet program can create a graph, but only a person can judge if it makes sense.



Line helps readers see change in mortality over time



Line makes it seem like cancer incidence is decreasing. But in reality there is no "trend." The data are from counties scattered across the state, from the same range of years.

Pie chart pitfalls. Use pie charts only if the categories are distinct (no overlaps) and the numbers add to 100%.

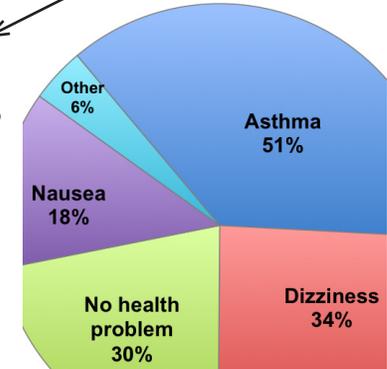
Detailed color graphics vs. black & white.

Color and pictures make an attractive final product for a big poster. Plan ahead, though: they can be expensive, and don't photocopy well in black & white.

Health Survey Results
In the past year have you experienced...?
Check all that apply.

"Check all that apply" means totals may add up to more than 100%

A column chart might be better. Or one circle graph for each health effect.



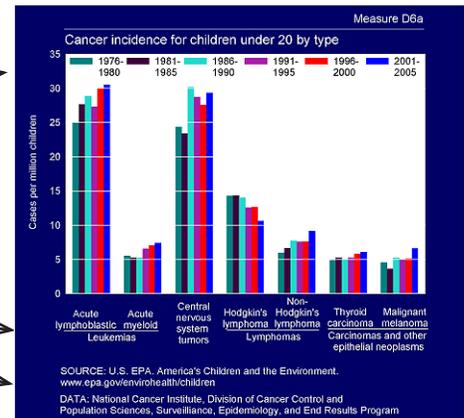
Comprehensive data vs. key points.

Gauge your audience's interest and attention span. Will a typical reader take the time needed to read all the data you have? For most audiences, just focus on the most convincing stats.

Many data sets

Many categories

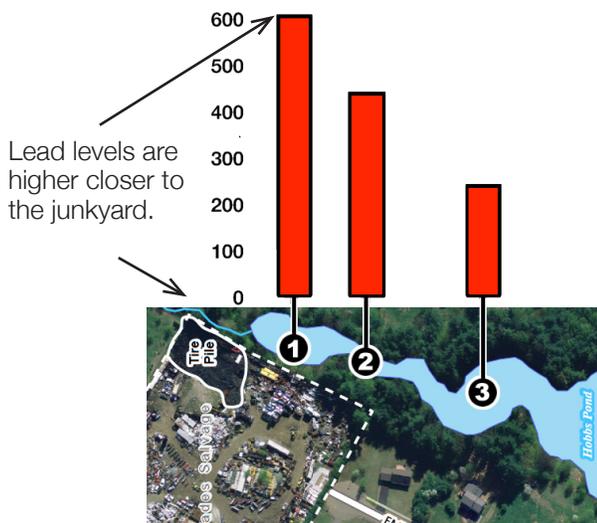
Many citations



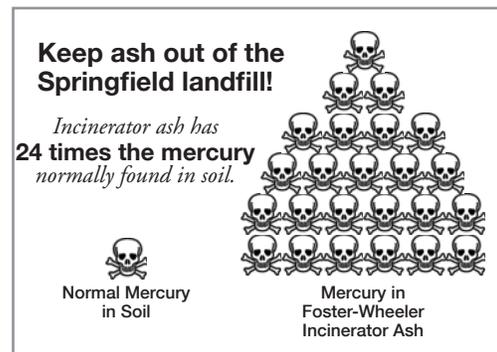
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4. Revise and Polish

Use visuals that support your message. Make lines or colors bolder for more serious results. Replace bars with little icons, like trucks or skulls or dollar bills. A map can help readers put the data in context.



Adjust for people’s instincts. Many people expect that more is better, so if more is bad, make that clear.



Help people see the pattern. Use a key or legend if needed, but it’s faster to understand a chart if you put labels, data, and graphics together so keys aren’t needed. If your data are scattered, you can add a line to show the trend. Use computer spreadsheet software to make it accurate.

Final check. Look at your graph for five seconds. Look at it again from across the room, in a mirror, or upside down. Can a reader get the message quickly? Edit to strengthen the features that communicate your message, remove things that don’t. Look again; make final tweaks.

