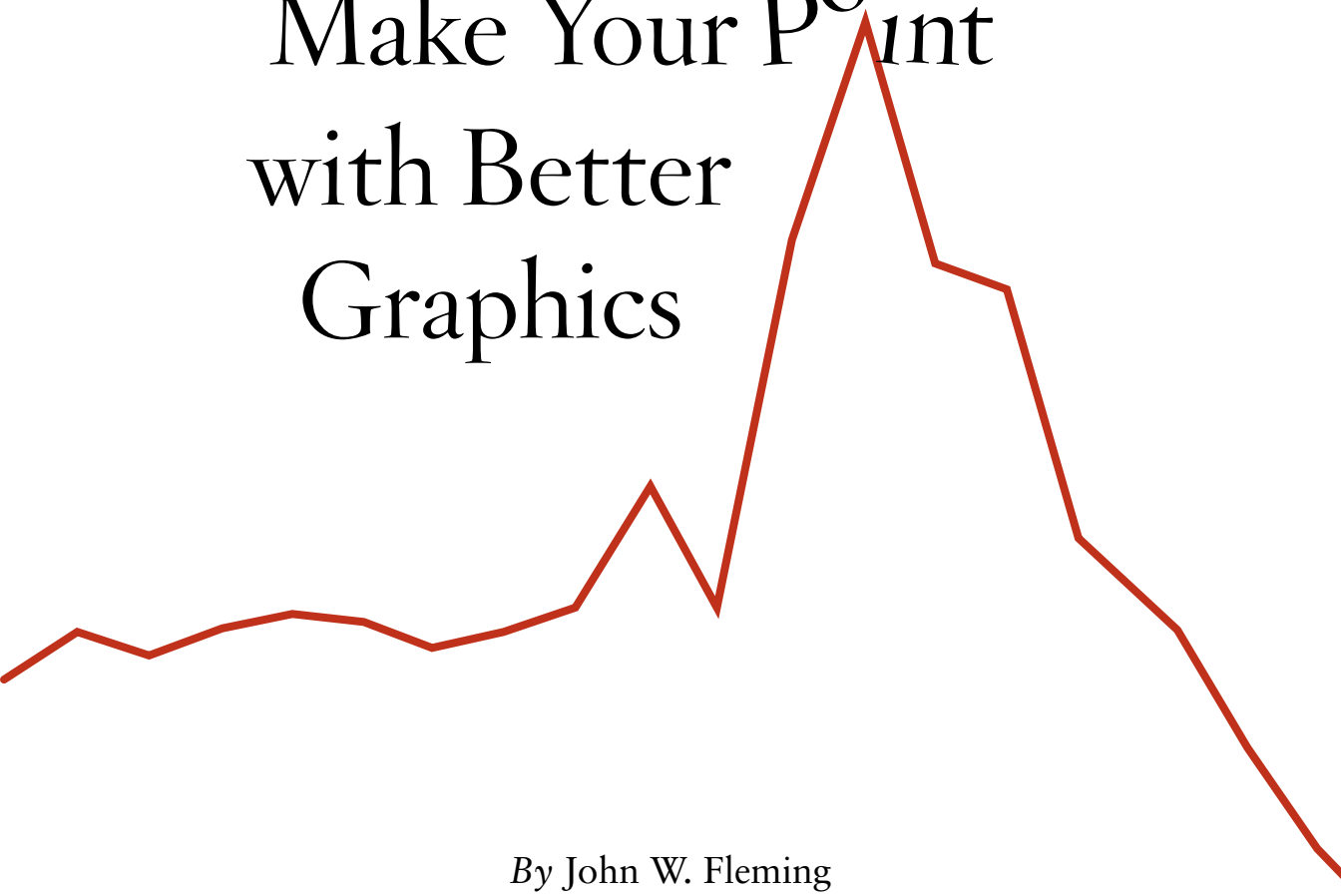
Make Your Point with Better Graphics



By John W. Fleming

It's no great stretch to suggest that practically every public policy analyst working today has, at one time or another, taken figures from a spreadsheet and tried to generate a chart. And why not? Computer programs are replete with charting or graphing capabilities, and think tanks have access to enormous amounts of data. The analyst inputs some numbers, adjusts a few settings, and *voilà*—instant visuals! But while the tools are accessible, the results can be mixed. Many analysts find themselves underwhelmed with the results. Others try to increase the visual impact by changing colors, using patterns, or adding other elements, only to see their work spiral into a mass of clashing colors and illegibility.

If the results are sometimes disappointing, the efforts are noble. Information graphics are the great companions to

research articles. Some are modest, yet others lead the charge and can actually *become* the article. Whether they are born out of little or great ambition, information graphics, when used with care and understanding, can make points in ways that words alone cannot.

My primary role as graphics editor is to oversee the production of information graphics, but experience has taught me the importance of demystifying my work. Much of my time is spent with dozens of incredibly intelligent colleagues; I couldn't hope to know what they know. One of the keys to improving our graphics, I've found, is to allow them to see through my eyes a little and give them a glimpse of what is possible. Here are a few insights that can help form the foundation of a successful graphics operation.

Consistency in style will direct the reader's attention to the content of the graphic; inconsistency can distract.

DON'T REINVENT THE WHEEL WITH EACH GRAPHIC

To determine how your graphics will look, you need to develop a style. Style refers to visual elements such as colors, fonts, and so forth. The goal is to promote a consistent appearance. Once you develop a style that works, stick to it. Consistency in style will direct the reader's attention to the content of the graphic; inconsistency, on the other hand, can be a distraction.

To establish a house style and ensure it is followed consistently, you should create style sheets. Style sheets document the visual elements of the graphic—mainly fonts, sizes, line thicknesses, colors, and distances between elements—thus becoming a reference for those who produce them. The primary benefits are maintaining a consistent appearance and saving time. Style sheets reduce guesswork. An artist can spend more time developing the content in a graphic and less time trying to figure out what the best typeface is.

Style sheets can vary from basic to detailed, depending on the organization, the product, and the art director; but regardless, they are documents that should change, grow, and evolve. They are communication devices and are meant to be shared. Style sheets and their subsequent templates should be perceived as living documents. Business practices, procedures, and products constantly change, so style sheets need regular reviewing, updating, and discussion. And while their main goal is to aid communication between artists and designers, they're worth sharing with other members of your team. Coworkers might be surprised with the level of detail in your documentation.

FOCUS ON THE DATA AND AVOID DECORATION

Credible public policy articles are the result of intensive researching, fact-checking, crafting, and editing, and they touch on important issues in our lives. Their audiences range from the concerned man on the street to the most powerful leaders of the world. Simply put, public policy articles are for intelligent adults, so graphics that accompany them should be designed that way—sophisticated, informative, and insightful.

The perception persists that the purpose of graphics is to provide visual zing. The temptation, upon seeing a small, simple, yet clear information graphic, is often to jazz it up with

FIGURE 1

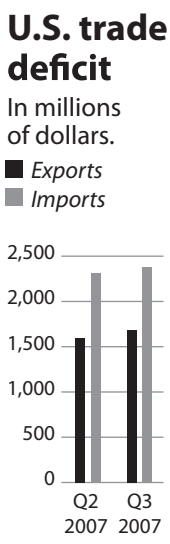
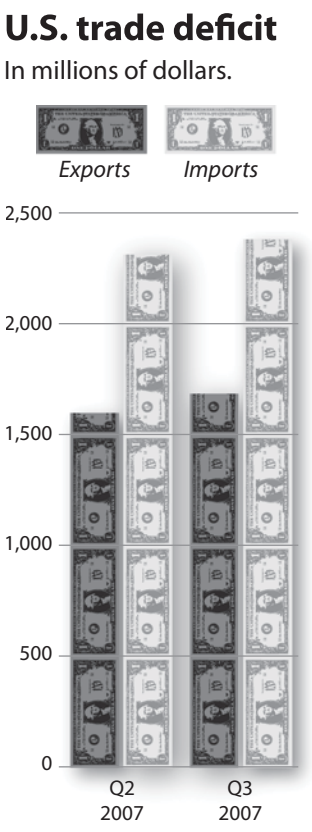


FIGURE 2



additional elements and garish colors. It looks *too* simple, an editor might argue, so we need to make it pop out more. We need to make it grab the eye, draw the readers in, sock them in the nose! Enhance those visuals, liven up those colors, scream from the hilltops!

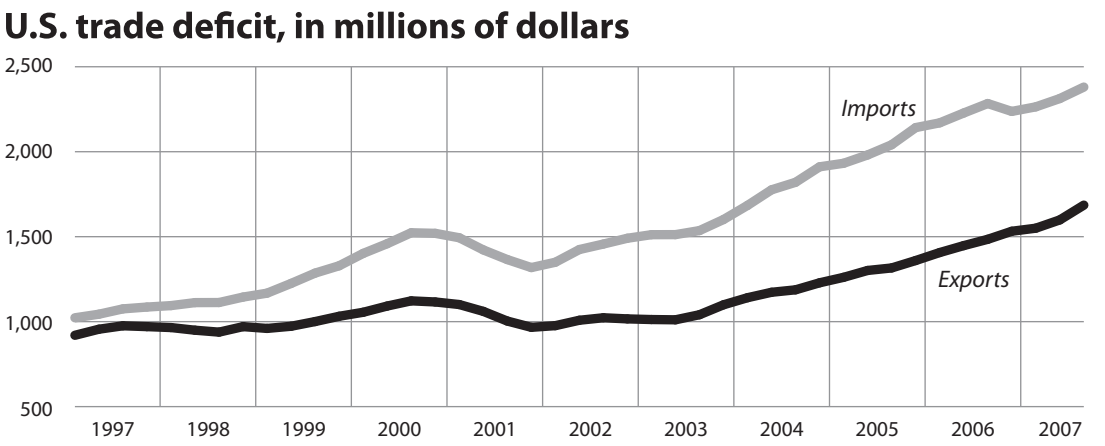
This attitude approaches graphics in terms of how they look, but not how they work. A good information graphic is about the information, and graphical elements are tools to enhance, clarify, and reveal that information. A graphic should give the reader a greater understanding of the data. That's how graphics should work.

Graphics have inherent visual appeal. Merely placing a small, simple graphic onto a page filled with nothing but text can break up the grayness and make it more presentable, but the same can be said of other style choices such as using a different font or color for a heading, or leaving some space on the page empty. An information graphic's greatest potential lies in its ability to illuminate.

Thinking of graphics as decorations not only marginalizes the craft and ignores the possibilities for presenting information; it actually does a disservice to the product. Imagine an article analyzing the trade deficit. The analyst explains the situation early in the article and states how the deficit is affecting the economy, then carefully and precisely begins to reveal the connection between the deficit and the points made in the analysis. The reader follows along, absorbing the facts, then upon turning the page is jarred by an eye-popping graphic with images of stacked U.S. dollars whose heights represent imports and exports for this quarter compared to the previous quarter. Chances are the graphic did as it was intended: It grabbed the eye. Unfortunately, it may have had unintended secondary effects, such as causing the reader to laugh, sneer, or—worst of all—stop reading.

This example displays two common mistakes in the approach of information graphics. First, the information was decorated. Second, the artist accepted only two quarters' worth of data (four data points). Both choices put the visuals first and the information second. The editor may have been correct that the first draft (Figure 1) was too simple, but at least its size was appropriate to the data it contained; the decorated version (Figure 2) takes up nearly three times the space as the first, but contains no additional information. A more sophisticated solution could have been simply to expand the data set (Figure 3). Instead of

FIGURE 3



leaning on special effects, this version appeals to the reader's intellect and curiosity. How big is the deficit? What is the historical context of the deficit? Are there any interesting anomalies? A cursory glance reveals a lag in both imports and exports in 2001, but a closer look shows a dip in imports between the third and fourth quarters of 2006. Does it mean anything? Is it significant? Raising those questions is part of the analysis.

Engaged readers think while reading. They don't just download the article into their brain—they connect points, relate what they're reading to other ideas, and ask questions. And those questions can lead to more questions. Readers don't need a graphic to prod them awake; they need it to make information clearer and to answer questions they may not even know they have. That's stimulation.

UNDERSTANDING THE ROLE OF THE GRAPHIC

In the context of a research article, information graphics constitute specialized content to provide evidence for individual points made in the narrative. Their goal is to support and extend the reach of the article by clearly presenting data. A common adage among information artists is "show, don't tell." It's a rule of thumb that also serves as a reminder that graphics work best when they focus on visuals and can operate with a minimum of words. Analysts express themselves with characters generated by typing on a keyboard; modern graphic artists use lines, polygons, and color to do their heavy lifting.

The ultimate goal of a graphic, however, should not be wordlessness. To exist only as a vision without a voice is an unnecessary limitation. Text is just another tool in the artist's toolbox. Adept use of headlines, introductory text, and descriptions can increase a graphic's impact and encourage reader interaction.

In particular, a common oversight demonstrated by research article graphics is to underestimate the utility of a good headline. Consider, for example, these two title options:

> Figure 1. Poverty rates of families with children under the age of 18, by family structure and race/ethnicity, 1974–2006.
> Figure 1. Children in single-parent households are far more likely to be in poverty.

Both are accurate, but the first is a description, and the second is an assertion. I sus-

pect most readers will find the second more compelling.

A headline is a functional element. Simply put, it is the most prominent text within a given layout and is typically read first. That hierarchy can be applied to individual graphics as well. Arguably, it is better for a reader's first encounter with a graphic to be a simple but confident proclamation with data to back it up rather than merely a flat description of the contents. In as much as the article exists to make a point, the graphic can adopt a similar voice.

Making effective use of text advances a graphic toward a more worthy goal: to stand alone. A graphic that can serve both as supplementary content referenced from the narrative and as an independent, self-contained visual article is more engaging to readers. Diligent readers who start at the beginning of the article and review the graphic when it is first referenced benefit from the reiteration. Other readers who sample headlines and introductions before committing may discover a graphic through casual page flipping. If the headline and introduction are succinct, the graphic may serve as a small window to the overall theme of the article and actually encourage closer attention.

As specialized content, though, graphics should be used judiciously. A dozen pie charts might sound like a good idea, but, if handled poorly, they can become an eye-rubbing distraction that derails a reader's efforts. So, how many is too many? How big is too big? When does a graphic cross the threshold between highly sophisticated and downright overwhelming?

There are both hard rules and best practices for the proper implementation of information graphics. By definition, simple graphics are simple endeavors; plotting univariate data as either a bar chart or a line graph doesn't require much skill, but it's clear the payoff is minimal. To fully explore the realm of possibilities and seek out maximum impact, you'll need real expertise.

Information artists are specialists—even within the graphics community—and they frequently demonstrate a wide-ranging and diverse set of skills, including (but hardly limited to) a traditional artist's ability to render visuals; a designer's eye for color, composition, and layout; a statistician's appreciation for data analysis; and a student's curiosity and desire to understand subjects that are entirely new. Additionally, information artists require specialized tools and technical skills. They typically work in Adobe Illustrator, the industry standard for desktop graphics, and in today's information age, experience with Web-based applications such as Flash is becoming more of a requirement. If your product is in print, the artist needs to design for print, and likewise for the Web.

The goal of graphics is to support and extend the reach of an article by clearly presenting data.

That may sound like a tall order, but it's not a checklist. An artist should use their skills to extend the paper—to make the article easier to understand, more accessible, more engaging, more fascinating, and more convincing. That's how they should be used, and readers—even if they don't know why—will appreciate it.

Mr. Fleming is Senior Data Graphics Editor at The Heritage Foundation.