9 Conducting Visual Arguments

In today's visually oriented culture, arguments increasingly use photographs, drawings, graphics, and innovative page and text design for persuasive effect. As we shall see, visuals can enhance the *logos*, *pathos*, and *ethos* of an argument by supporting or clarifying an argument's logical core, moving audiences imaginatively and emotionally, or enhancing the writer's credibility and authority. They can also substantially enliven a writer's argument, keeping readers hooked and engaged. In this chapter, we ask you to explore with us the enormous rhetorical potential of visual elements in arguments, particularly the way that visual and verbal elements can collaborate to achieve persuasive effects.

Using visuals in arguments also poses challenges. It places on arguers an even greater burden to understand their audience, to think through the effect visuals will have on that audience, and to make sure that the verbal and visual parts of an argument work together. Before we examine visual design, we want to describe three recent examples of both the power and challenge of using visuals.

- In May 1999, the Makah, a Native American tribe in western Washington state, reinstated its cultural practice of hunting whales. Although guaranteed the right by treaty and by a permit from the International Whaling Commission to hunt and kill four gray whales a year, the Makah encountered vehement protests from environmental groups and whale lovers. This hostility was further inflamed by the media coverage that showed the hunting and killing of a whale in detail on national television. To manage angry public response to the footage of this killing, the Makah called in David Margulies, president of a Dallas-based public relations firm. In a newspaper article, Margulies, while commenting on this crisis, described the impact of visuals: "The picture is always the most powerful element of the story," and "One of the first things you want to do in public relations is control the picture. Whichever side has the better picture very often controls the argument."

- In an article entitled "Sending the Right Message in Art Form," posted on the Web site of the Humane Society of the United States, the author warns local

Humane Society chapters against the careless use in their newsletters of draw-ings and photos that can undermine the organization's goals. To motivate peo-ple to care for their animals responsibly, the article proposes these guidelines: avoid showing any unneutered males or females with litters, dogs with prong collars or choke chains unless they are in training sessions, unsupervised dogs outside or cats outdoors, or dogs tied to trees, doghouses, or fences. Photos and drawings should show all dogs and cats with visible collars and ID tags and should depict mixed breeds as well as purebreds and mature animals as well as adorable puppies and kittens.

■ In July 2002, Fox News and MSNBC evoked angry responses from the White House when they used a split screen to televise President Bush's speech on the economy, expanding their stock market tickers to take up most of the screen and reducing the president to a small box. As Bush talked about improvement in the economy, the larger portion of the screen showed stock market numbers falling. White House spokesman Ari Fleischer called the split-screen approach "a troubling new development that sensationalizes and distorts what makes markets go up and down. It suggests to viewers that there's a causal connec-tion between a president's speech and minute-by-minute market shifts, which is a misleading representation. . . . It's economic nonsense."

Each of these instances demonstrates the suggestive power of visual elements and the challenge of planning exactly how visuals should function in your argument.

With this background in mind, we turn now to explaining some basic compo-nents of visual design. We then examine several genres of visual argument such as posters and fliers, public affairs advocacy ads, political cartoons, and Web pages. The third section of the chapter explains how you can use visual elements in your own arguments and invites you to create your own poster or advocacy advertisement. In the final section, we explain how you can display numerical data graphically for rhetorical effect.

Understanding Design Elements in Visual Argument

To understand how visual images can produce an argument, you need to under-stand the design elements that work together to create a visual text. In this section we'll explain and illustrate the four basic components of visual design: use of type, use of space and layout, use of color, and use of images.

Use of Type

Type is an important visual element of written arguments. Variations in type, such as size, boldface, italics, or all caps, can direct a reader's attention to an argu-ment's structure and highlight main points. In arguments designed specifically for visual impact, such as posters or advocacy advertisements, type is often used

TABLE 9.1   *Examples and uses of type fonts*

Font Style	Font Name	Example	Use
Serif fonts	Times New Roman Courier New **Bookman Old Style**	Use type wisely. Use type wisely. **Use type wisely.**	Easy to read; good for long documents, good for *body type*, or the main verbal parts of a document
Sans serif fonts	**Arial** Century Gothic	**Use type wisely.** Use type wisely.	Tiring to read for long stretches; good for *display type* such as headings, titles, slogans
Specialty fonts	Dauphin Broadway	Use type wisely. Use type wisely.	Difficult to read for long stretches; effective when used sparingly for playful or decorative effect

in eye-catching and meaningful ways. In choosing type, you need to consider the typeface or font style, the size of the type, and formatting options. The main typefaces or fonts are classified as serif, sans serif, and specialty type. Serif type has little extensions on the letters. (This text is set in serif type.) Sans serif type lacks these extensions. Specialty type includes script fonts and special symbols. In addition to font style, type comes in different sizes. It is measured in points, with one point equal to 1/72 of an inch. Most text-based arguments consisting mainly of body text are written in ten- to twelve-point type whereas more image-based arguments may use a mixture of type sizes that interact with the images for persuasive effect. Type can also be formatted using bold, italics, underlining, or shading for emphasis. Table 9.1 shows examples of type styles, as well as their typical uses.

The following basic principles for choosing type for visual arguments can help you achieve your overall goals of readability, visual appeal, and suitability.

Principles for Choosing Type for Visual Arguments

1. If you are creating a poster or advocacy advertisement, you will need to decide how much of your argument will be displayed in words and how much in images. For the text portions, choose *display type* (sans serif) or specialty fonts for titles, headings, and slogans and *body or text type* (serif) for longer passages of text.

2. Make type functional and appealing by using only two or three font styles per document.

3. Use consistent patterns of type (similar type styles, sizes, and formats) to indicate relationships among similar items or different levels of importance.

4. Choose type to project a specific impression (a structured combination of serif and sans serif type to create a formal, serious, or businesslike impression; sans serif and specialty type to create a casual, informal, or playful impression, and so forth).

Besides these general principles, rhetorical considerations of genre and audience expectations should govern decisions about type. Text-based arguments in scholarly publications generally use plain, conservative fonts with little variation whereas text-based arguments in popular magazines may use more variations in font style and size, especially in headings and opening leads. Visual arguments such as posters, fliers, and advocacy ads exploit the aesthetic potential of type.

Use of Space or Layout

A second component of visual design is layout, which is critical for creating the visual appeal of an argument and for conveying meaning. Even visual arguments that are mainly textual should use space very purposefully. By spacing and layout we mean all of the following points:

- Page size and type of paper
- Proportion of text to white space
- Proportion of text to image(s) and graphics
- Arrangement of text on page (space, margins, columns, size of paragraphs, spaces between paragraphs, justification of margins)
- Use of highlighting elements such as bulleted lists, tables, sidebars, boxes
- Use of headings and other means of breaking text into visual elements

In arguments that don't use visuals directly, the writer's primary visual concern is document design, where the writer tries to meet the conventions of a genre and the expectations of the intended audience. For example, Megan Matthews' researched argument on pages 416–423 is designed to meet the document conventions of the American Psychological Association (APA). Note the use of a plain, conventional typeface (for easy reading), double-spacing, and one-inch margins (to leave room for editorial marking and notations), and special title page, headers, and page number locations (to meet expectations of readers familiar with APA documents—which all look exactly the same).

But in moving from verbal-only arguments to visual arguments that use visual elements for direct persuasive effect—for example, posters, fliers, or advocacy ads—creative use of layout is vital. Here are some ideas to help you think about the layout of a visual argument.

Principles for Laying Out Parts of a Visual Text

1. Choose a layout that avoids clutter and confusion by limiting how much text and how many visual items you put on a page.
2. Focus on creating coherence and meaning with layout.
3. Develop an ordering or structuring principle that clarifies the relationships among the parts.

4. Use layout and spacing to indicate the importance of items and to empha-size key ideas. Because Western readers read from left to right and top to bottom, top and center are positions that readily draw readers' eyes.

An Analysis of a Visual Argument Using Type and Spatial Elements

To illustrate the persuasive power of type and layout, we ask you to consider Figure 9.1, which shows an advocacy ad sponsored by a coalition of organizations aimed at fighting illegal drugs.

This ad, warning about the dangers of the drug Ecstasy, uses different sizes of type and layout to present its argument. The huge word "Ecstasy" first catches the reader's attention. The first few words at the top of the ad, exuding pleasure, lull the reader with the congruence between the pleasurable message and the playful type. Soon, however, the reader encounters a dissonance between the playful type and the meaning of the words: "dehydrate," "hallucinate," "paranoid," and "dead" name unpleasant ideas. By the end of the ad, readers realize they have been led through a downward progression of ideas beginning with the youth cul-ture's belief that Ecstasy creates wonderfully positive feelings and ending with the ad's thesis that Ecstasy leads to paranoia, depression, and death. The playful infor-mality of the font styles and the unevenly scattered layout of the type convey the seductiveness and unpredictability of the drug. The ad concedes that the first ef-fects are "falling in love with the world" but implies that what comes next is in-creasingly dark and dangerous. At the end of the ad, in the lines of type near the bottom, the message and typestyle are congruent again. The question "Does that sound harmless to you?" marks a shift in type design and layout. The designer composed this section of the ad in conventional fonts centered on the page in a ra-tional, businesslike fashion. This type design signals a metaphoric move from the euphoria of Ecstasy to the ordered structure of everyday reality, where the reader can now consider rationally the drug's harm. The information at the bottom of the ad identifies the ad's sponsors and gives both a Web address and a telephone num-ber to call for more information about Ecstasy and other illegal drugs.

For Class Discussion

This exercise asks you to examine Figure 9.2, an advocacy ad sponsored by Common Sense for Drug Policy. This ad also focuses on the drug Ecstasy and also uses type and layout to convey its points. (This ad appeared in the liberal maga-zine *The Progressive* in October 2000.) Individually or in groups, study this advo-cacy ad and then answer the following questions.

1. What is the core argument of this ad? What view of drug use and what course of action is this ad promoting? What similarities and differences do you see between the argument about Ecstasy in this ad and the ad in Figure 9.1?

FIGURE 9.1   *Advocacy advertisement warning against ecstasy*

2. What are the main differences in the type and layout of the two ads in Figure 9.1 and 9.2? To what extent do the ad makers' choices about type and layout match the arguments made in each ad?

What We Know About Ecstasy

What is Ecstasy?

Ecstasy, MDMA,[1] is a semi-synthetic drug patented by Merck Pharmaceutical Company in 1914 and abandoned for 60 years. In the late 1970s and early 1980s psychiatrists and psychotherapists in the US used it to facilitate psychotherapy.[2] In 1985 its growing recreational use caused the DEA to criminalize it.

Ecstasy's effects last 3 to 6 hours. It is a mood elevator that produces feelings of empathy, openness and well-being. People who take it at all night "rave" dances say they enjoy dancing and feeling close to others. It does not produce violence or physical addiction.[3]

What are the greatest risks from Ecstasy?

Death is a possibility when using MDMA. According to coroner reports, there were nine Ecstasy-related deaths (three of these involved Ecstasy alone) in 1998.[4] Some of these deaths are related to overheating. MDMA slightly raises body temperature. This is potentially lethal in hot environments where there is vigorous dancing and the lack of adequate fluid replacement.[5] Many of these tragic deaths were preventable with simple harm reduction techniques such as having free water available and rooms where people can rest and relax.

One of the recent risks associated with Ecstasy is the possibility of obtaining adulterated drugs that may be more toxic than MDMA. Some of the reported deaths attributed to Ecstasy are likely caused by other, more dangerous drugs.[6] Deaths from adulterated drugs are another consequence of a zero tolerance approach. While we do not encourage Ecstasy use, we recommend that the drug be tested for purity to minimize the risk from adulterated drugs by those who consume it.[7] However, MDMA itself has risks. For example, it raises blood pressure and heart rate. Persons with known cardiovascular or heart disease should not take MDMA.

Recent studies have indicated that individuals who have used MDMA may have decreased performance in memory tests compared to nonusers. These studies are presently controversial because they involved people who used a variety of other drugs. Furthermore, it is difficult to rule out possible pre-existing differences between research subjects and controls.[8]

What is a rave?

Raves are all-night dance parties popular with young people that feature electronic music. A variety of drug use, from alcohol to nicotine, and including ecstasy, occurs at raves. Hysteria is leading to criminalization of raves, thus pushing them underground and into less safe and responsible settings.

Let's deal with legal and illegal drugs knowledgeably, understand their relative dangers, act prudently and avoid hysteria.

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202-299-9780 * 202-518-4028 (fax)

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FIGURE 9.2 *Common Sense for Drug Policy advocacy ad*

3. How would you analyze the use of type and layout in Figure 9.2? How does this ad use typestyles to convey its argument? How does it use layout and spacing?

4. The ad in Figure 9.1 appeared in the weekly entertainment section of *The Seattle Times*, a newspaper with a large general readership, whereas the ad in Figure 9.2 appeared in a liberal news commentary magazine. In what ways is each ad designed to reach its audience?

Use of Color

A third important element of visual design is use of color, which can contribute significantly to the visual appeal of an argument and move readers emotionally and imaginatively. In considering color in visual arguments, writers are especially controlled by genre conventions. For example, academic arguments use color minimally whereas popular magazines often use color lavishly. The appeal of colors to an audience and the associations that colors have for an audience are also important. For instance, the psychedelic colors of 1960s rock concert posters would probably not be effective in poster arguments directed toward conservative voters. Color choices in visual arguments often have crucial importance, including the choice of making an image black and white when color is possible. As you will see in our discussions of color throughout this chapter, makers of visual arguments need to decide whether color will be primarily decorative (using colors to create visual appeal), functional (for example, using colors to indicate relationships), realistic (using colors like a documentary photo), aesthetic (for example, using colors that are soothing, exciting, or disturbing), or some intentional combination of these.

Use of Images and Graphics

The fourth design element includes images and graphics, which can powerfully condense information into striking and memorable visuals, clarify ideas, and add depth, liveliness, and emotion to your arguments. A major point to keep in mind when using images is that a few simple images may be more powerful than complicated and numerous images. Other key considerations are (1) how you intend an image to work in your argument (for example, convey an idea, illustrate a point, evoke an emotional response) and (2) how you will establish the relationship between the image or graphic and the verbal text. Because using images and graphics effectively is especially challenging, we devote the rest of this chapter to explaining how images and graphics can be incorporated into visual arguments. We treat the use of photographs and drawings in the next main section and the use of quantitative graphics in the final section.

An Analysis of a Visual Argument Using All the Design Components

Before we discuss the use of images and graphics in detail, we would like to illustrate how all four of the design components—use of type, layout, color, and image—can reinforce and support each other to achieve a rhetorical effect. Consider the "Save the Children" advocacy ad appearing as Color Plate E. This advocacy ad combines type, layout, color, and image skillfully and harmoniously through its dominant image complemented by verbal text that interprets and applies the ideas conveyed by the image. The layout of the ad divides the page into three main parts, giving central focus to the image of the mother standing and looking into the eyes of the child she is holding in her arms. The blank top panel leads readers to look at the image. Two color panels, mauve behind the child and rose behind the mother, also highlight the two figures, isolate them in time and space, and concentrate the readers' attention on them. The large type in the black borders ("SHE'S THE BEST QUALIFIED TEACHER FOR HER CHILDREN." "IMAGINE IF SHE HAD AN EDUCATION.") frames the image, attracts readers' eyes, and plants the main idea in readers' minds: mothers should be equipped to teach their children.

This advocacy ad, which appeared in *Newsweek*, skillfully blends familiar, universal ideas—a mother's love for her child and the tenderness and strength of this bond—with unfamiliar, foreign associations—a mother and child from a third-world country, wearing the traditional clothing of their country depicted by the head scarf the mother is wearing and the elaborate design on her sleeve. In addition to the familiar-unfamiliar dynamic, a universal-particular dynamic also operates in this ad. This woman and baby are *every* mother and child (after all, we don't know exactly where she is from), but they are also from some specific third-world country. The two figures have been posed to conjure up Western paintings and statues of the Madonna and Christ child. With this pose, the ad intends that readers will connect with this image of motherly love and devotion and respond by supporting the "Every Mother/Every Child" campaign. Color in this ad also accents the warm, cozy, hopeful impression of the image; pink in Western culture is a feminine color often associated with women and babies. In analyzing the photographic image, you should note what is *not* shown: any surroundings, any indication of housing or scenery, any concrete sense of place or culture. The text of the ad interprets the image, provides background information, and seeks to apply the ideas and feelings evoked by the image to urging readers to action. The image, without either the large type or the smaller type, does convey an idea as well as elicit sympathy from readers, but the text adds meaning to the image and builds on those impressions and applies them.

The ad designer could have focused on poverty, illiteracy, hunger, disease, and high mortality rates but instead has chosen to evoke positive feelings of identification and to convey hopeful ideas. While acknowledging their cultural difference from this mother and child, readers recognize their common humanity and are moved to "give mothers and children the best chance to survive and thrive."

The large amounts of blank space in this ad help to convey that the main points here are important, serious, elemental, but also simple—as if the ad has gotten to the heart of the matter. The bottom panel of the ad gives readers the logo and name of the organization "Save the Children" and a phone number and Web address to use to show their support.

The Compositional Features of Photographs and Drawings

Now that we have introduced you to the four major elements of visual design—type, layout, color, and images—we turn to an in-depth discussion of photographic images and drawings. Used with great shrewdness in product advertisements, photos and drawings can be used with equal shrewdness in posters, fliers, advocacy ads, and Web sites. When an image is created specifically for an argument, almost nothing is left to chance. Although such images are often made to seem spontaneous and "natural," they are almost always composed: Designers consciously select the details of staging and composition as well as manipulate camera techniques (filters, camera angle, lighting), and digital or chemical development techniques (airbrushing, merging of images). Even news photography can have a composed feel. For example, public officials often try to control the effect of photographs by creating "photo-ops" (photographing opportunities), wherein reporters are allowed to photograph an event only during certain times and from certain angles. Political photographs appearing in newspapers are often press releases officially approved by the politician's staff. (See the photographs of President Bush later in this chapter on p. 178.)

To analyze a photograph or drawing, or to create visual images for your own arguments, you need to think both about the composition of the image and about the camera's relationship to the subject. Since drawings produce a perspective on a scene analogous to that of a camera, design considerations for photographs can be applied to drawings as well. The following list of questions can guide your analysis of any persuasive image.

- *Type of photograph or drawing:* Is the image documentary-like (representing a real event), fictionlike (intended to tell a story or dramatize a scene), or conceptual (illustrating or symbolizing an idea or theme)? The photo of a girl crowd-surfing in a mosh pit in Color Plate C, is a documentary photo capturing a real event in action. The drawing of the lizards in Color Plate F, is both a fictional narrative telling a story and a conceptual drawing illustrating a theme.
- *Distance from the subject:* Is the image a close-up, medium shot, or long shot? Close-ups tend to increase the intensity of the image and suggest the importance of the subject; long shots tend to blend the subject into the background. The photograph of the girl with a kitten in Color Plate H, is an extreme close-up. In contrast, the photograph of the young woman crossing the bridge in the

Haiti photograph (Color Plate D) is a long-range shot showing her blending into the poverty-stricken background, suggesting the devastating effect of poverty.

- *Orientation of the image and camera angle:* Is the camera (or artist) positioned in front of or behind the subject? Is it positioned below the subject, looking up (a low-angle shot)? Or is it above the subject, looking down (a high-angle shot)? Front-view shots, such as the one of Albanian refugees in Figure 1. 1 (p. 6), tend to emphasize the persons being photographed. In contrast, rear-view shots often emphasize the scene or setting. A low-angle perspective tends to make the subject look superior and powerful, whereas a high-angle perspective can reduce the size—and by implication—the importance of the subject. A level angle tends to imply equality. The high-angle shot of the "American Taliban" John Lindh strapped naked to a stretcher (Figure 7.2, p. 139) emphasizes the superiority of the camera and the helplessness of Lindh. In contrast the low-angle perspective of the lizards in Color Plate F, emphasizes the power of the lizards and the inferiority of the viewer.

- *Point of view:* Does the camera or artist stand outside the scene and create an objective effect as in the Haiti photograph in Color Plate D? Or is the camera or artist inside the scene as if the photographer or artist is an actor in the scene, creating a subjective effect as in the drawing of the lizards in Color Plate F.

- *Use of color:* Is the image in color or in black and white? Is this choice determined by the restrictions of the medium (the publication can't afford color, as in many newspaper photographs) or is it the conscious choice of the photographer or artist? Are the colors realistic or muted? Have special filters been used (a photo made to look old through the use of brown tints)? The bright colors in the lizard and Goldilocks drawing in Color Plate F, and in the forest scene in Color Plate G, resemble illustrations in books for children. The subdued colors in the soybean ad in Color Plate B, are intended to look realistically natural and neutral.

- *Compositional special effects:* Is the entire image clear and realistic? Is any portion of it blurred? Is it blended with other realistic or nonrealistic images (a car ad that blends a city and a desert; a body lotion ad that merges a woman and a cactus)? Is the image an imitation of some other famous image such as a classic painting (as in parodies)? Both the Earthustice ad in Color Plate F, and the Saturn VUE ad in Color Plate G, are conscious imitations of children's picture books.

- *Juxtaposition of images:* Are several different images juxtaposed, suggesting relationships between them? Juxtaposition can suggest sequential or causal relationships or can metaphorically transfer the identity of a nearby image or background to the subject (as when a bath soap is associated with a meadow). This technique is frequently used in public relations to shape viewers' perceptions of political figures as when President Bush is positioned in front of Mount Rushmore in Figure 9.5 (p. 178).

- *Manipulation of images:* Are staged images made to appear real, natural, documentary-like? Are images altered with airbrushing? Are images actually composites of a number of images (for instance, using images of different women's bodies to create one perfect model in an ad or film)? Are images cropped for emphasis? What is left out? Are images downsized or enlarged? For an example of a staged photo that is intended to look natural, see the "Save the Children" advocacy ad in Color Plate E. Note too how the figures in the "Save the Children" ad are silhouetted to remove all background.

- *Settings, furnishings, props:* Is the photo or drawing an outdoor or indoor scene? What is in the background and foreground? What furnishings and props, such as furniture, objects in a room, pets, and landscape features, help create the scene? What social associations of class, race, and gender are attached to these settings and props? The white girl holding a cat in the Center for Consumer Freedom ad in Color Plate H, is a calculated choice. The ad maker could have used an African American boy with a dog or an Asian girl with a rabbit but selected the girl-and-cat photograph for a rhetorical purpose.

- *Characters, roles, actions:* Does the photo or drawing tell a story? Are the people in the scene models? Are the models instrumental (acting out real-life roles) or are they decorative (extra and included for visual or sex appeal)? What are the facial expressions, gestures, and poses of the people? What are the spatial relationships of the figures? (Who is in the foreground, center, and background? Who is large and prominent?) What social relationships are implied by these poses and positions? In the "Save the Children" advocacy ad shown in Color Plate E, the pose of the mother and child—each completely absorbed in adoration of the other—tells the story of the bonds of love between mothers and babies.

- *Presentation of images:* Are images separated from each other in a larger composition or connected to each other? Are the images large in proportion to verbal text? How are images labeled? How does the text relate to the image(s)? Does the image illustrate the text? Does the text explain or comment on the image? For example, the image of the soybean plant in Color Plate B, dominates the right side of the advocacy ad, while attractively designed type dominates the left side of the ad. (You might consider why the ad maker places text on the left and image on the right instead of reversing the order or placing text on top and image on the bottom.) The image of the coat hanger hook dominates the advocacy ad on page 182, while the image of the can in Color Plate A, shares the page with a substantial amount of verbal text.

An Analysis of a Visual Argument Using Images

To show you how images can be analyzed, let's examine the advertisement for a Saturn VUE sport-utility vehicle (Color Plate G). At one level, the persuasive

intent of this ad is to urge viewers to buy a Saturn VUE. But at a more subtle level, this advertisement participates in an international debate about SUVs and the environment. Whereas Europeans are buying smaller, more fuel-efficient cars, Americans are buying SUVs that guzzle gas like trucks. Among their opponents, SUVs—whether fairly or unfairly—have become a worldwide symbol of Americans' greed for oil and their disdain for the environment.

How do car manufacturers fight back? Clearly, they can't make a logical argument that owning an SUV is good for the environment. But they can use psychological strategies that urge consumers to associate SUVs with pro-environment sentiments. So in this ad Saturn turns to visual argument. Using a carefully designed drawing, the advertisement shows the Saturn VUE blending into an "evergreen forest" scene. Surrounded by a moose, a porcupine, a bear, a squirrel, and other forest birds and animals, the SUV seems to belong in its forest home. The brilliance of the ad is the insert legend at the bottom left, where the forest creatures are identified by name. The ad teaches city dwellers who buy SUVs the names of the forest animals—not just "bird" but "Black-Capped Chickadee," not just "rabbit" but "Snowshoe Hare." (Because the ad was designed as a two-page magazine spread, we had to reduce its size in Plate G, making the animal names tiny. They are easily readable in the original.) The ad becomes a mini-lesson in identifying and naming the "Creatures of the evergreen forest"—Creature number one, of course, being the Saturn VUE.

To make the Saturn VUE blend harmoniously with the forest, this ad cleverly de-emphasizes the size of the vehicle, even though the dominant size of SUVs is part of their appeal to urban consumers. To compensate for this choice, the typical appeals of SUVs are rendered symbolically. For example, the VUE's power and agility, hinted at in the brief copy at the bottom right of the ad, are conveyed metaphorically in the image of the puma, "poised" like the Saturn, crouching and oriented in the same direction, like the car's guiding spirit. It enters the scene from the outside, the predator, silent and powerful—the main animal to be identified with the car itself. Other animals close to the car and facing the same direction as the car each stand for one of the car's attributes so that the VUE also possesses the speed of the hare, the brute size and strength of the bear, and the soaring freedom of the goshawk.

The whole ad works by association. The slogan "At home in almost any environment" means literally that the car can go from city to country, from desert to mountains, from snow to tropic heat. But so can any car. The slogan's purpose is to associate the car with the words *home* and *environment*—words that connote all the warm, fuzzy feelings that make you feel good about owning a Saturn VUE. In addition, the use of drawings and the identification of animals by numbers conjure up the delightful, instructive innocence of children's books: this car must be a good thing. And in its own special way, this ad has skillfully shifted consumers' attention away from global warming and environmental degradation.

FIGURE 9.3 *President Bush clearing brush from Texas ranch*

FIGURE 9.4 *President Bush greeting a crowd*

FIGURE 9.5 *President Bush delivering a speech at Mount Rushmore*

For Class Discussion

1. The techniques for constructing photos come into play prominently in news photography. In this exercise, we ask you to examine three photographs of President Bush that accompanied news articles appearing in the *New York Times* in summer 2002. These photographs were taken at photo-ops carefully staged by White House staff. Working individually or in groups, study Figures 9.3, 9.4, and 9.5 and then answer the following questions:

   a. What are the most noticeable features of each photo?

   b. What do you think is the dominant impression of Bush that each photo seeks to convey? In other words, what is the implicit argument?

   c. What camera techniques and compositional features do you see in each photo?

   d. What image of President Bush do these photographs attempt to create for citizens and voters?

2. The image on the opening page of Part Three (page 197) is a photograph of the suffragettes' campaign for the vote for women in the early twentieth century. What is the rhetorical effect or impact of this photograph?

   a. What features of the composition of the photo and its type suggest that this is an old photo? What features most stand out in this photo?

   b. What is the dominant impression of this photo?

   c. What image of women does this photo project?

3. Examine carefully the advertisement sponsored by the Center for Consumer Freedom in Color Plate H, and then, working individually or in groups, answer the following questions:

   a. What camera techniques and compositional features do you see in this ad?

   b. What is the proportion of verbal text to image? How would you describe the layout of this ad? How does the text relate to the image?

   c. We think of most ads as *for* some product or organization, yet this ad focuses on what it is *against*. How does the cropping of the image and the intrusiveness of the verbal text help to convey the argument of the ad? How would you summarize the ad's argument?

   d. This ad appeared in *Newsweek*, a news commentary magazine with a general readership. How does the ad use its visual design to reach its audience?

The Genres of Visual Argument

We have already mentioned that verbal arguments today are frequently accompanied by photographs or drawings that contribute to the text's persuasive appeal.

For example, a verbal argument promoting United Nations action to help AIDS victims in Africa might be accompanied by a photograph of a dying mother and child. However, some genres of argument are dominated by visual elements. In these genres, the visual design carries most of the argumentative weight; verbal text is used primarily for labeling, for focusing the argument's claim, or for commenting on the images. In this section we describe specifically these highly visual genres of argument.

Posters and Fliers

To persuade audiences, an arguer might create a poster designed for placement on walls or kiosks or a flier to be passed out on street corners. Posters dramatically attract and direct viewers' attention toward one subject or issue. They often seek to rally supporters, promote a strong stance on an issue, and call people to action. For example, during World War II, posters asked Americans to invest in war bonds and urged women to join the workforce to free men for active combat. During the Vietnam War, famous posters used slogans such as "Make Love Not War" or "Girls say yes to boys who say no" to increase national resistance to the war.

The hallmark of an effective poster is the way it focuses and encodes a complex meaning in a verbal-visual text, often with one or more striking images. These images are often symbolic—for example, using children to symbolize family and home, a soaring bird to symbolize freedom, or three firefighters raising the American flag over the World Trade Center rubble on September 11, 2001, to symbolize American heroism, patriotism, and resistance to terrorism. These symbols derive potency from the values they share with their target audience. Posters tend to use words sparingly, either as slogans or as short, memorable directives. This terse verbal text augments the message encoded in an eye-catching, dominant image.

As an example of a classic poster, consider the Part Opener on page 73, which promotes bicycle riding as an alternative to cars. Note how the drawing of the tortured figures captures imaginatively both the physical damage of air pollution and the psychological damage of being trapped in traffic—ideas also captured in the carefully chosen words, which are charged with double meanings: "Exhausted" denotes both "exhaust" from cars and "exhaustion" from the snarled traffic and the hectic pace of an automobile-dominated life. "Get a life" alludes both to improving your health and to improving the quality of your lived experience through the exercise, simplicity, and freedom of a bicycle.

Fliers and brochures often use visual elements similar to those in posters. An image might be the top and center attraction of a flier or the main focus of the front cover of a brochure. However, unlike posters, fliers and brochures offer additional space for verbal arguments, which often present the writer's claim supported with bulleted lists of reasons. Sometimes pertinent data and statistics, along with testimony from supporters, are placed in boxes or sidebars.

Public Affairs Advocacy Advertisements

Public affairs advocacy advertisements share with posters an emphasis on visual elements, but they are designed specifically for publication in newspapers and magazines and, in their persuasive strategies, are directly analogous to product advertisements. Public affairs advocacy ads are usually sponsored by a corporation or an advocacy organization and often have a more time-sensitive message than do posters and a more immediate and defined target audience. Designed as condensed arguments aimed at influencing public opinion on civic issues, these ads are characterized by their brevity, audience-based appeals, and succinct, "sound bite" style. Often, in order to sketch out their claim and reasons clearly and concisely, they employ headings and subheadings, bulleted lists, different sizes and styles of type, and a clever, pleasing layout on the page. They usually have some attention-getting slogan or headline like "MORE KIDS ARE GETTING BRAIN CANCER. WHY?" or "STOP THE TAX REVOLT JUGGERNAUT!"

The balance between verbal and visual elements in an advocacy advertisement varies. Some advocacy ads are verbal only with visual concerns focused on document design (for example, an "open letter" from the president of a corporation appearing as a full-page newspaper ad). Other advocacy ads are primarily visual, using images and other design elements with the same shrewdness as advertisements. We looked closely at advocacy ads in Chapter 2, where we presented ads opposing and supporting genetically modified foods (Color Plate A, and Color Plate B), and in this chapter in the ads on Ecstasy and "Save the Children."

As another example of a public affairs advocacy ad, consider Figure 9.6, which attempts to counter the influence of the pro-life movement's growing campaign against abortion. Sponsored by the Planned Parenthood Responsible Choices Action Network, this ad appeared in a variety of liberal magazines in the United States. The ad seems to have two targeted audiences in mind: The first audience is persons already committed to a pro-choice stance; the ad urges them to action. The second audience is neutral persons who may support women's rights but may be wavering on their stance toward abortion. Such an audience, the ad makers believe, might be startled into support of the pro-choice position by this stark reminder of the negative consequences of unsafe abortions.

As you can see, this ad is dominated by one stark image: a question mark formed by the hook of a coat hanger. The shape of the hanger hook draws the reader's eye to the concentrated type centered below it. The hanger hook carries most of the weight of the argument. Simple, bold, and harsh, the image of the hanger, tapping readers' cultural knowledge, evokes the dangerous experience of illegal abortions performed crudely by nonmedical people in the dark backstreets of cities. The ad wants viewers to think of the dangerous last resorts that desperate women would have to turn to if they could not obtain abortions legally.

*When
your right
to an abortion
is taken away,
what are you
going to
do*

Reproductive rights are under attack. The Pro-Choice Public Education Project. It's pro-choice or no choice.
1(688)253-CHOICE or www.protect.choice.org

FIGURE 9.6   *Advocacy advertisement supporting a pro-choice stance*

The hanger itself creates a visual pun: As a question mark, it conveys the ad's dilemma about what will happen if abortions are made illegal. As a coat hanger, it provides the ad's frightening answer to the printed question—desperate women will return to backstreet abortionists who use coat hangers as tools. The further implied question is, "Will you help us prevent this bleak outcome?" The whole purpose of the ad is to motivate people to take action by contacting this organization through the phone number or Web site provided. Note how the word "Responsible" is centered in the final block of text beneath the coat hanger question mark. This organization wants to convey that the "responsible" position on

this issue is to keep abortion legal, safe, and available so that women don't have to return to the era of back-alley abortions.

For Class Discussion

Examine the public affairs advocacy ad shown in Color Plate F. This ad, sponsored by the Earthjustice, defends the presence of grizzly bears in Yellowstone National Park as well as other wilderness areas in the Rocky Mountains. In our classes, this ad has yielded rich discussion of its ingenuity and complexity.

Working individually or in groups, conduct your own examination of this ad using the following questions:

1. What visual features of this ad immediately attract your eyes? What principles for effective use of type, layout, and use of color and image does this ad exemplify?
2. What is the core argument of this ad?
3. Why did Earthjustice use the theme of Goldilocks? How do the lizards function in this ad? Why does the ad NOT have any pictures of grizzlies or bears of any kind?
4. How would you design an advocacy ad for the preservation of grizzly bears? What visuals would you use?

After discussing the Earthjustice advocacy ad, explore the rhetorical appeals of another advocacy ad such as the one that appears on the opening page of Part Four on page 355. The designers of this ad, sponsored by the drug-prevention organization Partnership for a Drug Free America®, have also made key choices in choosing the ad's one main image. How does this advocacy ad work to convey its argument? Consider questions about its use of type, layout, color, and image, about the core of its argument, and about its appeals to *ethos* and *pathos*.

Cartoons

An especially charged kind of visual argument is the political cartoon. Although you are perhaps not likely to create your own political cartoons, it is useful to understand how cartoonists use visual and verbal elements to convey their message. British cartoonist Martin Rowson calls himself "a visual journalist" who employs "humor to make a journalistic point." Political cartoons are often mini-narratives, portraying an issue dramatically, compactly, and humorously. They employ images and a few well-chosen words to dramatize conflicts and problems. Using caricature, exaggeration, and

distortion, cartoonists distill an issue down to an image that boldly reveals the creator's perspective and subsequent claim on a civic issue. The purpose of political cartoons is usually satirical, or, as cartoonist Rowson says, "about afflicting the comfortable and comforting the afflicted." Because they are so condensed and often connected to current affairs, political cartoons are particularly dependent on the audience's background knowledge of cultural and political events. When political cartoons work well, through their perceptive combination of image and words, they flash a brilliant, clarifying light on a perspective or open a new lens on an issue, often giving readers a shock of insight.

As an illustration, note the Dana Summers cartoon in Figure 9.7, which first appeared in the *Orlando Sentinel* during a period of national debate on the right of music lovers to download free songs and CDs from the Internet. Media opinion often sided with the music industry, which held that free downloading of music constituted theft of intellectual property. A defense sometimes made by music lovers was that the music industry was gouging the market with overpriced CDs. Dana Summers' cartoon constitutes his needle-sharp rebuttal of this common argument.
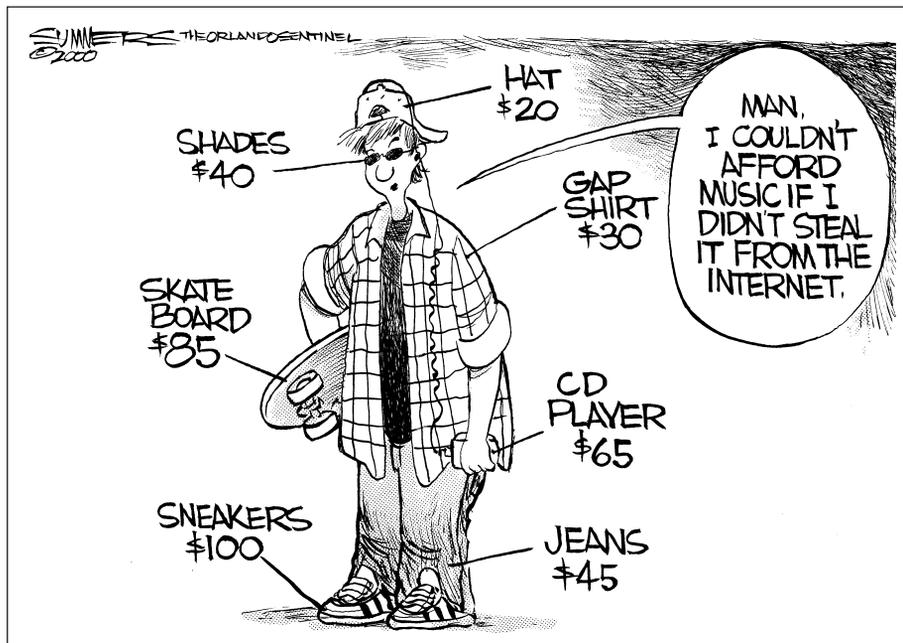
FIGURE 9.7   *Political cartoon supporting the music industry in the dispute about downloaded music*

FIGURE 9.8   *Iranian cartoon showing an Iranian perspective on the U.S. war against terrorism*

For Class Discussion

1. Cartoons can often sum up a worldview in a single image. Figure 9.8, by an Iranian cartoonist, shows an Islamic view of the U.S. war on terrorism, particularly the search for Osama bin Laden. Working in small groups or as a whole class, explain what this cartoon is arguing. From the perspective of this cartoon, how does the Iranian "street" view the United States? How does this cartoonist's view of Osama bin Laden differ from the American view?

2. The opening page of Part One (page 1) shows a political cartoon on genetic engineering of food. What mini-narrative does it convey? What is the cartoon arguing? How does the cartoon use caricature, exaggeration, or distortion to convey its perspective?

Web Pages

So far we have only hinted at the influence of the World Wide Web in accelerating use of visual images in argument. Because reproducing high-quality images (especially color images) is expensive in a print medium, writers of argument prior to the Web often relied mainly on verbal text. But the Web has now made it possible to publish arguments incorporating powerful color images. The hypertext design of Web pages, along with its complex intermixture of text and image, has changed the way many writers think of argument. The home page of an advocacy site, for example, often has many features of a poster argument with hypertext links to galleries of images on the one hand, and to verbal arguments on the other. These verbal arguments themselves often contain photographs, drawings, and graphics. The strategies discussed in this chapter for analyzing and interpreting visual texts also apply to Web pages. Consider, for example, the home page of 50 Years Is Enough: The U.S. Network for Global and Economic Justice (Color Plate I). This organization is opposed to the economic policies of the International Monetary Fund and the World Bank Group, which, the organization claims, has caused widespread suffering and poverty over its fifty year history. The site's design uses colorful posters as "buttons" for its hyperlinks to "About Us," "Take Action," and so forth. How does the home page design and its use of images contribute to the *ethos* of the organization and the *pathos* of its appeal for grass roots action against the World Bank?

Because the Web is such an important tool in research, we have placed our main discussion of Web sites in Chapter 16, pages 369–372. On these pages you will find our explanations for reading, analyzing, and evaluating Web sites.

Constructing Your Own Visual Argument

The most common visual arguments you are likely to create are posters and fliers, public affairs advocacy ads, and possibly Web pages. You may also decide that in longer verbal arguments, the use of visuals or graphics could clarify your points while adding visual variety to your paper. The following guidelines will help you apply your understanding of visual elements in the construction of your own visual arguments.

Guidelines for Creating Visual Arguments

1. *Genre:* Determine where this visual argument is going to appear (bulletin board, passed out as a flier, imagined as a one-page magazine or newspaper spread, or as a Web page).

2. *Audience-based appeals:* Determine who your target audience is.
   - What values and background knowledge of your issue can you assume that your audience has?

- What specifically do you want your audience to think or do after reading your visual argument?
- If you are promoting a specific course of action (sign a petition, send money, vote for or against a bill, attend a meeting), how can you make that request clear and direct?

3. *Core of your argument:* Determine what clear claim and reasons will form the core of your argument; decide if this claim and these reasons will be explicitly stated or implicit in your visuals and slogans.

- How much verbal text will you use?
- If the core of your argument will be largely implicit, how can you still make it readily apparent and clear for your audience?

4. *Visual design:* What visual design and layout will grab your audience's attention and be persuasive?

- How can font sizes and styles, layout, and color be used in this argument to create a strong impression?
- What balance and harmony can you create between the visual and verbal elements of your argument? Will your verbal elements be a slogan, express the core of the argument, or summarize and comment on the image(s)?

5. *Use of images:* If your argument lends itself to images, what photo or drawing would support your claim or have emotional appeal? (If you want to use more than one image, be careful that you don't clutter your page and confuse your message. Simplicity and clarity are important.)

- What image would be memorable and meaningful to your audience? Would a photo image or a drawing be most effective?
- Will your image(s) be used to provide evidence for your claim or illustrate a main idea, evoke emotions, or enhance your credibility and authority?

As an example of a poster argument created by a student, consider Leah Johnson's poster in Figure 9.9. Intended for bulletin boards and kiosks around her college campus, Johnson's work illustrates how a writer can use minimal but well-chosen verbal text, layout, and images to convey a rhetorically effective argument. (That is Leah herself in the photograph.) In this ad, Leah is joining a national conversation about alcohol abuse on college campuses and is proposing a safe way of handling her university's weekly social get-together for older students, "Thirsty Thursdays." Notice how Leah in this visual argument has focused on her claim and reasons without seeing the need to supply evidence.

For Class Discussion

This exercise asks you to do the thinking and planning for a poster argument to be displayed on your college or university campus. Choose an issue that is

FIGURE 9.9   *Student advocacy ad promoting the use of designated drivers*

controversial on your campus (or in your town or city), and follow the Guidelines for Creating Visual Arguments on pages 186–187 to envision the view you want to advocate on that issue. What might the core of your argument be? Who is your target audience? Are you representing a group, club, or other organization? What image(s) might be effective in attracting and moving this audience? Possible topics for issues might be commuter parking; poor conditions in the computer lab; student reluctance to use the counseling center; problems with

dorm life, financial aid programs, or intramural sports; ways to improve orientation programs for new students, work-study programs, or travel abroad opportunities; or new initiatives such as study groups for the big lecture courses or new service-learning opportunities.

Using Graphics as Visual Arguments

Besides images in the form of photographs and drawings, writers often use quantitative graphics to support arguments using numbers. In Chapter 6 we introduced you to the use of quantitative data in arguments. We discussed the persuasiveness of numbers and showed you ways to use them responsibly in your arguments. (See p. 121.) With the advent of spreadsheet and presentation programs, today's writers often create and import quantitative graphics into their documents. These visuals—such as tables, pie charts, and line or bar graphs—can have great rhetorical power by making numbers tell a story at a glance. In this section, we'll show you how quantitative graphics can make numbers speak. We'll also show you how to incorporate graphics into your text and reference them effectively.

How Tables Contain a Variety of Stories

Data used in arguments usually have their origins in raw numbers collected from surveys, questionnaires, observational studies, scientific experiments, and so forth. Through a series of calculations, the numbers are combined, sorted, and arranged in a meaningful fashion, often in detailed tables. Some of the tables published by the U.S. Census Bureau, for example, contain dozens of pages. The more dense the table, the more their use is restricted to statistical experts who pore over them to analyze their meanings. More useful to the general public are mid-level tables contained on one or two pages that report data at a higher level of abstraction.

Consider, for example, Table 9.2, published by the U.S. Census Bureau in its document "America's Families and Living Arrangements: Population Characteristics" based on the 2000 census. This table shows the marital status of people fifteen years of age and older, broken into gender and age groupings, in March 2000. It also provides comparative data on the "never married" percent of the population in March 2000 and March 1970.

Take a few moments to peruse the table and be certain you know how to read it. You read tables in two directions: from top to bottom and from left to right. Always begin with the title, which tells you what the table contains and includes elements from both the vertical and horizontal dimensions of the table. In this case the vertical dimension presents demographic categories for people "15 years and over": for both sexes, for males, and for females. Each of these gender categories is subdivided into age categories. The horizontal dimension provides information about "marital status." Seven of the columns give total numbers (reported in thousands) for March 2000. The eighth column gives the "percent never married" for March 2000, while

TABLE 9.2 Marital status of people 15 years and over: March 1970 and March 2000 (In thousands)

Characteristic	March 2000								March 1970 percent never married[a]
	Total	Number						Percent never married	
		Married spouse present	Married spouse absent	Separated	Divorced	Widowed	Never married		
Both sexes									
Total 15 years old and over..	213,773	113,002	2,730	4,479	19,881	13,665	60,016	28.1	24.9
15 to 19 years old..	20,102	345	36	103	64	13	19,541	97.2	93.9
20 to 24 years old..	18,440	3,362	134	234	269	11	14,430	78.3	44.5
25 to 29 years old..	18,269	8,334	280	459	917	27	8,252	45.2	14.7
30 to 34 years old..	19,519	11,930	278	546	1,616	78	5,071	26.0	7.8
35 to 44 years old..	44,804	29,353	717	1,436	5,967	399	6,932	15.5	5.9
45 to 54 years old..	36,633	25,460	492	899	5,597	882	3,303	9.0	6.1
55 to 64 years old..	23,388	16,393	308	441	3,258	1,770	1,218	5.2	7.2
65 years old and over..	32,620	17,827	485	361	2,193	10,484	1,270	3.9	7.6
Males									
Total 15 years old and over..	103,113	56,501	1,365	1,818	8,572	2,604	32,253	31.3	28.1
15 to 19 years old..	10,295	69	3	51	29	3	10,140	98.5	97.4
20 to 24 years old..	9,208	1,252	75	70	101	-	7,710	83.7	54.7
25 to 29 years old..	8,943	3,658	139	170	342	9	4,625	51.7	19.1
30 to 34 years old..	9,622	5,640	151	205	712	15	2,899	30.1	9.4
35 to 44 years old..	22,134	14,310	387	585	2,775	96	3,981	18.0	6.7
45 to 54 years old..	17,891	13,027	255	378	2,377	157	1,697	9.5	7.5
55 to 64 years old..	11,137	8,463	158	188	1,387	329	612	5.5	7.8
65 years old and over..	13,885	10,084	197	171	849	1,994	590	4.2	7.5
Females									
Total 15 years old and over..	110,660	56,501	1,365	2,661	11,309	11,061	27,763	25.1	22.1
15 to 19 years old..	9,807	276	33	52	35	10	9,401	95.9	90.3
20 to 24 years old..	9,232	2,110	59	164	168	11	6,720	72.8	35.8
25 to 29 years old..	9,326	4,676	141	289	575	18	3,627	38.9	10.5
30 to 34 years old..	9,897	6,290	127	341	904	63	2,172	21.9	6.2
35 to 44 years old..	22,670	15,043	330	851	3,192	303	2,951	13.0	5.2
45 to 54 years old..	18,742	12,433	237	521	3,220	725	1,606	8.6	4.9
55 to 64 years old..	12,251	7,930	150	253	1,871	1,441	606	4.9	6.8
65 years old and over..	18,735	7,743	288	190	1,344	8,490	680	3.6	7.7

[a]The 1970 percentages include 14-year-olds, and thus are for 14+ and 14–19.
Represents zero or rounds to zero.
Source: U.S. Census Bureau, Current Population Survey, March 2000.

the last column gives the "percent never married" for March 1970. To make sure you know how to read the table, pick a couple of rows at random and say to yourself what each number means. For example, the first row under "Both sexes" gives total figures for the entire population of the United States ages fifteen and older. In March 2000 there were 213,773,000 persons fifteen and older (remember that the numbers are presented in thousands). Of these, 113,002,000 were married and living with their spouses. (If you have a pocket calculator handy, you can do your own arithmetic to determine that roughly 52 percent of people over fifteen are married and living with their spouses.) As you continue across the columns, you'll see that 2,730,000 persons are married but not living with their spouses (a spouse might be stationed overseas or in prison; or a married couple might be maintaining a "commuter marriage" with separate households in different cities). Continuing across the columns, you'll see that 4,479,000 persons were separated from their spouses, 19,881,000 were divorced, and 13,665,000 were widowed, and an additional 60, 016, 000 were never married. In the next to the last column, the number of never married persons is converted to a percentage: 28.1 percent (see for yourself that 60,016 divided by 213,773 is 28.1%). Finally, the last column shows the percentage of never married persons in 1970: 24.9%. These last two columns show us that the number of unmarried persons in the United States rose 3.2 percentage points since 1970.

Now that you know how to read the table, peruse it carefully to see the kinds of stories it tells. What does the table show you, for example, about the percentage of married persons ages 25–29 in 1970 versus 2000? What does it show about different age-related patterns of marriage in males and females? By showing you that Americans are waiting much later in life to get married, a table like this initiates many causal questions for analysis and argument. What has happened in American culture between 1970 and 2000 to explain the startling difference in the percentage of married persons within, say, the 20–24 age bracket? In 2000 only 22 percent of persons in this age bracket were married (we converted "unmarried" to "married" by subtracting 78.3 from 100). However, in 1970, 55 percent of persons in this age bracket were married.

Using a Graph to Tell a Story

Table 9.2, as we have seen, tells the story of how Americans are postponing marriage until later in life. However, one has to peruse the table carefully, poring over it like a sleuth, to tease out the story from the dense columns of numbers. To focus on a key story and make it powerfully immediate, you can create a graph.

Bar Graphs

Suppose, for example, that you are writing an argument in which you want to show that the percentage of married women in age groups 20–29 has dropped significantly since 1970. You could tell this story through a simple bar graph (Figure 9.10).

Bar graphs use bars of varying length, extending either horizontally or vertically, to contrast two or more quantities. As with any graphic presentation, you
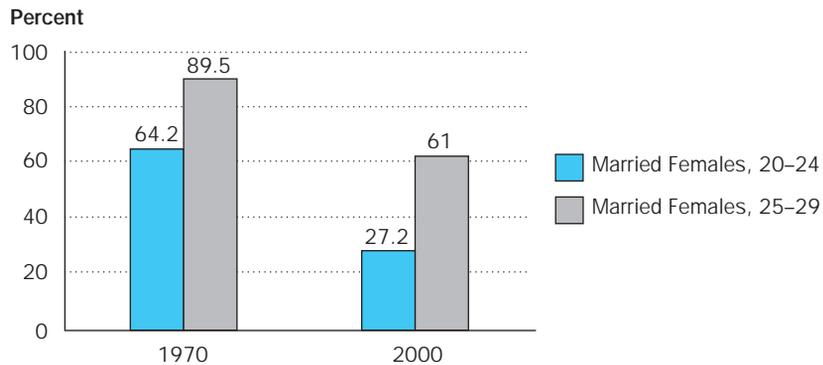
FIGURE 9.10   *Percentage of married females, ages 20–29, 1970 and 2000*

Source: U. S. Census Bureau, Current Population Survey, March 2000.

must create a comprehensive title. In the case of bar graphs, titles tell readers what is being compared to what. Most bar graphs also have "legends," which explain what the different features on the graph represent. Bars are typically distinguished from each other by use of different colors, shades, or patterns of crosshatching. The special power of bar graphs is that they can help readers make quick comparisons between different groups across a variable such as time.

Pie Charts

Another vivid kind of graph is a pie chart, which depicts different percentages of a total (the pie) in the form of slices. Pie charts are a favorite way of depicting noteworthy patterns in the way parts of a whole are divided up. Suppose, for example,
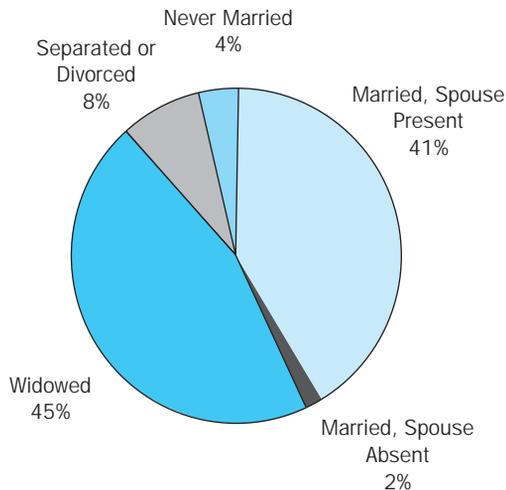
FIGURE 9.11   *Marital status of females, age 65 and older, 2000*
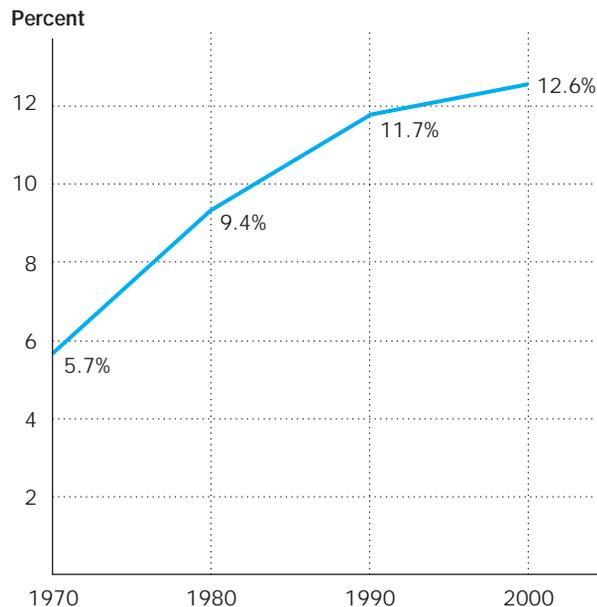
Source: U. S. Census Bureau, Current Population Survey, March 2000.

that you wanted your readers to notice the high percentage of widows among women 65 and older. To do so, you could create a pie chart (Figure 9.11) based on the data in the last row of Table 9.2. As you can see from Figure 9.11 a pie chart can demonstrate at a glance how the whole of something is divided into segments. The effectiveness of pie charts diminishes as you add more slices. In most cases, you'll begin to confuse readers if you include more than five or six slices.

Line Graphs

Another powerful quantitative graphic is a line graph, which converts numerical data into a series of points on a grid and connects them to create flat, rising, or falling lines. The result gives us a picture of the relationship between the variables represented on the horizontal and vertical axes.

Suppose you wanted to tell the story of the rising number of separated/divorced women in the U.S. population. Using Table 9.2, you can calculate the percent of separated/divorced females in 2000 by adding the number of separated females (2,661,000) and the number of divorced females (11,309,000) and dividing that sum by the total number of females (110,660,000). The result is 12.6 percent. You can make the same calculations for 1990, 1980, and 1970 by looking at U.S. census data from those years (available on the Web or in your library). The resulting line graph is shown in Figure 9.12.

FIGURE 9.12   *Percentage of females ages 15 and older who are separated or divorced, 1970–2000*

Source: U. S. Census Bureau, Current Population Survey, March 2000.

To determine what this graph is telling you, you need to clarify what's represented on the two axes. By convention, the horizontal axis of a graph contains the predictable, known variable that has no surprises—what researchers call the "independent variable." In this case the horizontal axis represents the years 1970–2000 arranged predictably in chronological order. The vertical axis contains the unpredictable variable that forms the graph's story—what researchers call the "dependent variable"—in this case, the percentage of divorced females. The ascending curve tells the story at a glance.

Note that with line graphs the steepness of a slope (and hence the rhetorical effect) can be manipulated by the intervals chosen for the vertical axis. Figure 9.12 shows vertical intervals of 2 percent. The slope could be made less dramatic by choosing intervals of, say, 10 percent and more dramatic by choosing intervals of 1 percent.

Incorporating Graphics into Your Argument

Today writers working with quantitative data usually use graphing software that automatically creates tables, graphs, or charts from data entered into the cells of a spreadsheet. (It is beyond the scope of this textbook to explain how to use these graphing utilities.) For college papers, some instructors may allow you to make your graphs with pencil and ruler and paste them into your document.

Designing the Graphic

When you design your graphic, your goal is to have a specific rhetorical effect on your readers, not to demonstrate all the bells and whistles available on your software. Adding extraneous data in the graph or chart or using such features as a three-dimensional effect can often call attention away from the story you are trying to tell. Keep the graphic as uncluttered and simple as possible and design it so that it reinforces the point you are making in your text.

Numbering, Labeling, and Titling the Graphic

In newspapers and popular magazines, writers often include graphics in boxes or sidebars without specifically referring to them in the text itself. However, in academic or professional workplace writing, graphics are always labeled, numbered, titled, and referred to directly in the text. By convention, tables are listed as "Tables," while line graphs, bar graphs, pie charts, or any other kinds of drawings or photographs are labeled as "Figures." Suppose you create a document that includes four graphics—a table, a bar graph, a pie chart, and an imported photograph. The table would be labeled as Table 1. The rest of the graphics would be labeled as Figure 1, Figure 2, and Figure 3.

In addition to numbering and labeling, every graphic needs a comprehensive title that explains fully what information is being displayed. Look back over the tables and figures in this chapter and compare their titles to the information

in the graphics. In a line graph showing changes over time, for example, a typical title will identify the information on both the horizontal and vertical axes and the years covered. Bar graphs also have a "legend" explaining how the bars are coded if necessary. When you import the graphic into your own text, be consistent in where you place the title—either above the graphic or below it.

Referencing the Graphic in Your Text

Academic and professional writers follow a referencing convention called *independent redundancy*. The general rule is this: The graphic should be understandable without the text; the text should be understandable without the graphic; the text should repeat the most important information in the graphic. Suppose, for example, that you

```
Elderly women are likely to need more social services          Writer's Point
than men because they are more likely to live alone.
As shown in Figure 1, only 41 percent of women over            References the figure
sixty-five live with their spouses. Of those without           Repeats the key
spouses, 45 percent are widowed. In contrast, 74 per-          information shown in
cent of men over sixty-five live with their spouses            the figure
while only 14 percent are widowed. These differences—
caused largely by the longer life expectancy of women
and by men's tendency to marry women younger than              Connects the
themselves—mean that women are more apt than men to            information to the
face old age alone.                                            point
```

Figure 1: Marital Status of Males and Females, Ages 65 and Older, 2000 —— *Title*

Males

Never Married
4%

Separated or
Divorced
7%

Widowed
14%

Married Spouse
Absent
1%

Married Spouse
Present
74%

Females   *Legends*

Never Married
4%

Separated or
Divorced
8%

Married Spouse
Present
41%

Widowed
45%

Married Spouse
Absent
2%

Source: "America's Families and Living Arrangements: Population Characteristics," U.S. Census —*Source*
Bureau, 2000

FIGURE 9.13   *Example of a student text with a referenced graph*

are writing an argument saying that social services for the elderly is a women's issue as well as an age issue and you want to use a pie chart that you have constructed. In your text, you would reference this chart and then repeat its key information as shown in Figure 9.13.

Conclusion

In this chapter we have explained the challenge and power of using visuals in arguments. We have examined the components of visual design—use of type, layout, color, and images—and shown how these components can be used for persuasive effect in arguments. We have also described the argumentative genres that depend on effective use of visuals—posters and fliers, advocacy advertisements, cartoons, and Web pages—and invited you to produce your own visual argument. Finally, we showed you that graphics can tell a numeric story in a highly focused and dramatic way. Particularly we explained the functions of tables, bar graphs, pie charts, and line graphs, and showed you how to incorporate into and reference graphics in your own prose.

WRITING ASSIGNMENTS
FOR CHAPTER 9

OPTION 1: *A Poster Argument*   Working with the idea for a poster argument that you explored in the For Class Discussion on page 183, use the visual design concepts and principles presented on page 180 in this chapter, your understanding of the visual argument and the genre of poster arguments, and your own creativity to produce a poster argument that can be displayed on your campus or in your town or city. Try out the draft of your poster argument on people who are part of your target audience. Based on these individuals' suggestions for improving the clarity and impact of this visual argument, prepare a final version of your poster argument.

OPTION 2: *A Microtheme Using A Quantitative Graphic*   Write a short microtheme that tells a story based on data you select from Table 9.2 or from some other table provided by your instructor or located by you. Include in your microtheme at least one quantitative graphic (table, line graph, bar graph, pie chart), which should be labeled and referenced according to standard conventions. Use as a model the short piece shown in Figure 9.13 on page 195.