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**Painting with print:
Incorporating concepts of typographic and layout
design into the text of legal writing documents**

Ruth Anne Robbins

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Painting with print: Incorporating concepts of typographic and layout design into the text of legal writing documents

Ruth Anne Robbins*

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Editor's Note: Because the topic of this article is how typography and layout affect the reception of written text, the article's typography and layout conform with the author's suggestions rather than adhering to the page design and heading conventions of J. ALWD.

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I. Introduction

"A good picture is equivalent to a good deed."¹ Rather than debate the relative worth of pictures compared to words, as does the faux Chinese

1. Ltr. from Vincent Van Gogh (1890), in *The Complete Letters of Vincent Van Gogh* vol. 3, no. 626a (N.Y. Graphics Socy. 1958) (available at <http://www.bartleby.com/66/47/62747.html>).

proverb/cliché on point,² attorneys should instead look upon the words on the pages of their lawyering documents as textual pictures unto themselves. Although including charts or other graphics will undoubtedly enhance documents in certain situations,³ as we well know, attorneys cannot submit a handful of pictures and call it a legal document. But visual effects do enhance learning. Research done by Edgar Dale on the effectiveness of learning based on various means for communicating information resulted in the creation of the widely cited learning pyramid.⁴ Not surprisingly, learning by listening appears at the top of the pyramid, with the lowest retention rate. The use of effective visual or audiovisual techniques presumably increases learning retention.⁵ Moreover, the look of words themselves affects visual perception. Thus, even with text alone, legal writers can create a picture using typography as paint on the canvas of the page.

In reality, the first thing the reader sees is the overall pattern of light and dark on the page. The careful and considered use of textual effects can help set a persuasive and positive mood for the document itself: a form of *pathos* or emotional appeal.⁶ Moreover, as part of establishing the *logos*⁷ of the substantive arguments contained in the document, the argument must be

2. The so-called proverb, “One picture is worth a thousand words,” was written in 1921 by Frederick R. Barnard, the national advertising manager at Street Railways Advertising Company. First used as a marketing slogan, it was edited in 1927 to its current form. The current form appeared next to an advertisement for Royal Baking Powder and was accompanied by Chinese lettering admittedly, according to the marketing manager, as a ploy to create a “Chinese proverb.” See Daryl H. Hepting, *What’s a Picture Really Worth*, <http://www2.cs.uregina.ca/~hepting/proverbial/history.html#27ad> (Mar. 1999) (citing *The Home Book of Proverbs, Maxims and Familiar Phrases* (Burton Stevenson ed., Macmillan Co. 1948)).

3. See Thomas G. Collins, *Beyond Words: New Tools Can Enhance Legal Writing*, 75 N.Y. State Bar J. 10 (June 2003).

4. The widely cited learning pyramid is based on the “Cone of Experience.” Edgar Dale, *Audio-Visual Methods in Teaching* 107 (3d ed., Dryden 1969); see also Jane Eyers and Beverly Stitt, *Preferred Delivery Methods for Small Industry Training*, 57(3) Continuing Higher Educ. Rev. 166 (Fall 1993) (study of adult training preferences in small blue collar industry yielded results mostly consistent with Dale’s Cone of Experience); Walter Wager, *Media Selection in the Affective Domain: A Further Interpretation of Dale’s Cone of Experience for Cognitive and Affective Learning*, 15(7) Educ. Tech. 9 (July 1975) (summarizing theories of pedagogical efficiency and effectiveness in terms of Dale’s Cone of Experience). You can see the pyramid at any one of hundreds of sites. See e.g. Master Teacher, *Active Learning Strategies*, <http://www.accd.edu/spc/iic/master/active.htm> (accessed Mar. 18, 2004). See also Hon. B. Michael Dann, Retired J. of the Ariz. Super. Ct. and Visiting Fellow, Natl. Ctr. for State Courts, Presentation, *Jury Trends and Innovations*, in *Report on Proceedings of The Second Western Regional Conference on State-Federal Judicial Relationships Jury Trends and Innovations* (Tucson, Ariz., Oct. 12, 2000) (available at <http://www.ce9.uscourts.gov/web/OCELibra.nsf/>; select Publications (accessed June 29, 2004)). The learning pyramid has been criticized. See *Bogus Research Uncovered, Work-Learning Research*, <http://www.work-learning.com/chigraph.htm> (accessed Apr. 5, 2004).

5. See sources cited in *supra* n. 4.

6. Michael R. Smith, *Advanced Legal Writing: Theories and Strategies in Persuasive Writing* (Aspen L. & Bus. 2002). Professor Smith has coined the phrase “medium mood control” to differentiate type of pathos based on tone rather than emotional content. *Id.*, *passim*.

7. Aristotle, *Rhetoric* bk. 1, ch. 2. (W. Rhys Roberts trans., Modern Library 1984).

presented in a visually effective manner so the reader can more easily understand the argument and retain more of the material. Visual effects thus are as critical an element of persuasion as proper grammar and adherence to the rules of court and citation form.

Arguably, visual effects also influence the writer's *ethos*,⁸ the credibility of the writer and the writer's argument. A reader who knows something about basic design principles may react negatively to a document that does not incorporate those basic principles. Lawyers are taught to use every part of a document as an opportunity to persuade. Textual design of the document should be approached with the same attitude, i.e., how can it help the lawyer persuade an audience?

This article seeks to help attorneys do good deeds for their readers by using the look of the words themselves to create a visually effective textual "picture" in lawyering documents. Because I intend to prove that the arguments and suggestions for better textual visuals are not opinion but are grounded in science, the article examines interdisciplinary research. The article also looks at accepted practices in graphic design. The research helps explain that principles of document design should not be considered "optional" or rejected as merely subjective speculation. In fact, most of the accepted principles of document design are grounded in scientific study.

The article begins with some explanation of learning theory and the principles of document design. This part of the paper will discuss some of the "whys" behind font and layout principles. Applied psychology studies have conclusively explained some concepts; others are maxims that graphic artists have agreed upon, even without hard science supporting the conclusions. Like lawyers, these visual design experts use their craft to persuade an audience about something. The article then analyzes some common myths about the visual design of legal briefs and concludes with a synthesized list of suggestions for lawyers to use in their documents. The article also includes an appendix charting the format rules of the state and federal appellate courts, along with the answer to whether an attorney can employ the synthesized design techniques in a particular jurisdiction.

A. Persuasion includes looking good on paper — literally

Persuasion is the backbone of a lawyer's job. Attorneys who are able to appeal to their audience will establish a measure of credibility, *ethos*, that will enhance the overall effectiveness of the argument. Although many articles written for the practicing attorney stress the conclusion that "adults are visual learners," what is more important is the finding that everyone benefits from a visually effective document. Visual persuasion works because we remember best when

8. *Id.*

we are presented information in images.⁹ Because the words on a page present a typographical image by themselves, attorneys must understand the concepts of artful and logical document design. “The regular, repeating patterns established through carefully organized pages of text and graphics help the reader to establish the location and organization of your information and increase legibility.”¹⁰

Undoubtedly, there will always be critics who argue against changing the current conventional text design of legal documents. In truth, some of this article advises the reader to change the usual formatting of headings and points of emphasis in a legal document; those changes may make the resulting document somewhat “different” in appearance from many legal documents, although not very different from many other published documents. No substantive content or precision will be lost, however, when the writer makes these changes. Proponents of plain English have successfully countered the traditionalist argument based on the ceremonial value of extra and cumbersome language in legal documents. Similarly, proponents of visual effectiveness can withstand the traditionalist argument based only on the value of adhering to conventional norms.¹¹

To be fair, there is a growing awareness in the law of the need for visual persuasion. But most of the articles related to lawyering focus on using actual graphics in a jury trial or a persuasive document.¹² There has been less focus on the visual effectiveness of the text itself. The Seventh Circuit Court of

9. Susumu Kobayashi, *Theoretical Issues Concerning Superiority of Pictures over Words and Sentences in Memory*, 63 *Perceptual & Motor Skills* 783, 784 (1996) (discussing Allan Paivio’s “dual coding theory” of memory, that humans activate independent imaginal and verbal codes but that pictures are more likely to be redundantly—dually—encoded and thus better remembered).

10. Patrick J. Lynch & Sarah Horton, *Web Style Guide 2d ed.*, <http://www.webstyleguide.com/type/legible.html> (last updated Mar. 5, 2004); accord Linda L. Lohr, *Creating Graphics for Learning and Performance: Lessons in Visual Literacy* 38 (Merrill Prentice Hall 2003) (discussing theory that visuals and words facilitate learning when they help readers “select, organize and integrate information in ways that are meaningful”).

11. SEC Plain English Rule, 17 C.F.R. §230.421; see also SEC Off. of Investor Educ., *A Plain English Handbook: How to Create Clear SEC Disclosure Documents* (SEC 1998) (available online at www.sec.gov/pdf/handbook.pdf (accessed Mar. 18, 2004)); Bryan A. Garner, *The Redbook: A Manual on Legal Style* (West 2002); Richard C. Wydick, *Plain English for Lawyers* (4th ed., Carolina Academic Press 1998). For an example of the widely criticized counterarguments that formal legal language’s ceremonial benefits outweigh the advantages of lucid language, and that cannibalizing similar legal documents without necessarily evaluating the persuasive merits of the template makes good economic sense, see David Crump, *Against Plain English*, 33 *Rutgers L. J.* 713 (2002).

12. See e.g. Hon. John L. Breeden Jr. & William A. Bryan Jr., *Improving Jury Deliberations: Perspectives from the Circuit Court Bench*, 12 *S.C. Law.* 18 (Oct. 2000); Thomas G. Collins, *Beyond Words: New Tools Can Enhance Legal Writing*, 75 *N.Y. State Bar J.* 10 (June 2003); *Demonstrative Exhibits: A Key To Effective Jury Presentations*, 340 *P.L.I./Lit.* 19 (1987); Frank Herrera, Jr. & Sonia M. Rodriguez, *To Avoid Boring Jurors, Trial Lawyers Must Consider Bringing Sophisticated Technology to Court*, 35 *Trial* 66 (May 1999).

Appeals' website is a notable exception, providing litigants with some advice on typography.¹³ Otherwise, however, only a handful of publications aimed at the practicing bar have addressed the visual effects of text in written advocacy.¹⁴

B. We are already behind the curve

Attorneys are often the last to wake up to trends. Our counterparts writing in other professional disciplines are years ahead of us in the scholarship. For example, two business schools, The Wharton School at the University of Pennsylvania, and the University of Minnesota, published studies more than two decades ago on the effectiveness of visual presentation. Those studies concluded exactly as you would expect: visual presentation matters.¹⁵ Similarly, the National Law Enforcement Trainers Association has published short articles about the use of good typography in presentations.¹⁶ Moreover, the United States Geological Society has started dictating the use of good visuals in internal memos.¹⁷ Even European highway traffic experts are using typography principles to design safer roadway signs.¹⁸ Visual persuasion is a recognized tool. Attorneys need to catch up.

II. The Science Behind the Advice

Making a textual document visually effective means making the document as readable as possible. The more readable the document, the more likely the reader will remember the content. Understanding the scientific studies that form the basis for textual design concepts should help the skeptical legal reader accept the resulting advice about how to visually structure a persuasive

13. United States Court of Appeals for the Seventh Circuit, *Guidelines for Briefs and Other Papers*, <http://www.ca7.uscourts.gov/Rules/type.pdf> (accessed Mar. 18, 2004) [hereinafter *Guidelines for Briefs*]. The website includes information on the difference between monospaced and proportionally spaced fonts, an explanation of the problems with all capital letters in the headings, and an explanation of how fonts are sized. *Id.*

14. See e.g. Garner, *supra* n. 11, at 65-73; Sheila A. Huddleston, *Putting the Right (Type) Face on Your Appeal*, 27 Conn. Law Trib. 43 (Oct. 22, 2001).

15. Lynn Oppenheim, *A Study of the Effects of the Use of Overhead Transparencies on Business Meetings* (U. of Pa. 1981) (study conducted at Wharton Applied Research Ctr., The Wharton Sch.); Douglas R. Vogel et. al, *Persuasion and the Role of Visual Presentation Support: The UM/3M Study*, (U. of Minn. 1986) (study conducted at Mgt. Info. Systems Research Ctr., Sch. of Mgt.).

16. Bryan D. Cox, *Creating Effective Visual Presentations*, NLETA Online Magazine, <http://nleta.com/articles/creatingeffectivevisuals.htm> (Oct. 2001).

17. United States Geological Survey, *Visual Identity System: Typography*, <http://www.usgs.gov/visual-id/manual/typography.html> (updated Oct. 16, 2002) (copy on file with author). The U.S. Geological Survey has removed the information from its website but similar information is available at several branch office sites. See e.g. <http://www.colorado.edu/geography/gcraft/notes/cartocom/section5.html> (accessed June 29, 2004). Their recommendations comport with the science of legibility discussed at length *infra* parts III and IV.

18. Eugene Bügleichenhaus, *The Manual on Uniform Traffic Control Devices and Type Safety*, excerpted at Typotheque, *Euroface*, <http://www.typotheque.com/articles/euroface.html> (Oct. 25, 1999) (discussed more thoroughly *infra* pt. IV).

document. Psychologists have long been interested in reading, how it is learned and how it is best effectuated. Beyond the obvious questions about how a child learns to read, researchers in the field also study adult reading. As early as 1885, psychologists conducted studies of reading in proficient adults.¹⁹ The psychologists break reading down into subparts: word identification, recognition, and perception. Word identification and recognition are interrelated, both referring to the recognition of words that are either immediately identifiable based on frequent encounters or recognizable based on infrequent encounters. Perception is the result and leads to understanding of the word's meaning.²⁰

The relevant psychological and educational studies fall into one of two categories: (A) legibility and (B) organization. Legibility refers to the effects of typographical features on the efficiency of reading perception. Organization involves the overall visuals: the macro structure (or large-scale organization) of a document, particularly the layout design and the use of “advance organizers” and “topical signals,” which we know as roadmaps or summaries and headings. At this point, I need to caution the legally trained reader who is expecting the argument to begin with the macro concepts before moving into the micro issues. This article varies that approach for good reason. All layout maxims derive from the legibility studies, and thus, this article's readers will have a more difficult time understanding the big picture until after they understand the finer details.

A. The little things do matter: Legibility of text

Legibility is measured by the ease of reading. The most prolific and probably the most conclusive studies were conducted from the late 1920s through the early 1960s. Most of those studies were initially published in the *Journal of Applied Psychology*. The most famous of the field's scientists were Miles A. Tinker and Donald G. Paterson. Drs. Tinker and Paterson studied legibility as measured by the speed of reading.²¹ Factors affecting the speed of reading include the type and size of font, the width of line, and the ratio of ink to white space on the page. Generally, the speed studies involved subjects reading passages that intentionally included one word that “spoiled” the text's meaning by being out of context.²² The results of the various studies have had a profound effect on graphic designers.

19. Miles A. Tinker, *Bases for Effective Reading* 15 (U. of Minn. Press 1965) (summarizing his scientific studies on reading and legibility of text).

20. *Id.* at 10-11.

21. *Id.* at 115.

22. *Id.* at 118. For example, there is a one-word spoiler in the following selection: “My mother and I had a nice day together last week. We had lunch at a wonderful little restaurant that I knee. Then we saw a movie.”

1. Stop screaming at me in rectangles: Why all capital letters just don't work

PERHAPS ONE OF THE MOST FAR-REACHING CONCLUSIONS DRs. TINKER AND PATERSON REACHED INVOLVED THE USE OF ALL CAPS. CONTRARY TO WHAT MANY PEOPLE MIGHT THINK, THE USE OF ALL CAPS ACTUALLY DRAMATICALLY DECREASES SPEED OF READING AS COMPARED TO SENTENCE CASE LETTERS. SENTENCE CASE REFERS TO THE TYPES OF LETTERS YOU WOULD NORMALLY SEE IN A SENTENCE SUCH AS THIS ONE WHEN IT IS NOT WRITTEN IN ALL CAPS. DURING REPEATED TESTS ON ADULTS, THE STUDIES INDICATED THAT THE USE OF ALL CAPS LENGTHENS THE READING TIME BY 9.5% TO 19%. THE AVERAGE READER TOOK ABOUT 12-13% MORE TIME TO READ ALL CAPS. THAT TRANSLATES TO 38 WORDS/MINUTE SLOWER THAN USING SENTENCE CASE. MOREOVER, WHEN THE PSYCHOLOGISTS ASKED THE PARTICIPANTS FOR THEIR OPINION OF LEGIBILITY, 90% OF THE PARTICIPANTS PREFERRED LOWER CASE TYPE.

In case you didn't want to read that last paragraph, here it is again, this time in sentence case:

Perhaps one of the most far-reaching conclusions Drs. Tinker and Paterson reached involved the use of capitalization. Contrary to what many people might think, the use of all capital letters in a heading ("all caps") actually dramatically decreases speed of reading as compared to sentence case letters. Sentence case refers to the types of letters you would normally see in a sentence such as this one. During repeated tests on adults, the studies indicated that the use of all caps lengthens the reading time by 9.5% to 19%. The average reader took about 12-13% more time to read all caps. That translates to 38 words/minute slower than using sentence case.²³ Moreover, when the psychologists asked the participants for their opinion of legibility, 90% of the participants preferred lower case type.²⁴

23. *Id.* at 136. Initial tests done in 1928 studied legibility of all caps using 1.75 minute reading intervals. Miles A. Tinker & Donald G. Paterson, *Influence of Type Form on Speed of Reading*, 12 J. Applied Psychol. 359 (Aug. 1928) [hereinafter Tinker & Paterson, *Influence of Type Form*]. Later, in response to critiques, Tinker and Paterson re-ran the studies in 1955 using reading intervals of 5, 10 and 20-minute periods. The results were largely the same. Miles A. Tinker & Donald G. Paterson, *The Effect of Typographical Variations Upon Eye Movement in Reading*, 49 J. of Educ. Research 171,181 (1955); Miles A. Tinker, *Prolonged Reading Tasks in Visual Research*, 39 J. Applied Psychol. 444 (Dec. 1955).

24. Miles A. Tinker, *Legibility of Print* 57 (Iowa State U. Press 1964) (synthesizing several decades of psychological research, mostly studies he personally conducted, on typeface and speed of reading). As a side note, this preference certainly bodes well for the ALWD Citation Manual, which specifies lower case letters for citations in law review articles (I couldn't resist the plug). ALWD & Darby Dickerson, *ALWD Citation Manual* 13 (2d ed., Aspen Publishers

I would be willing to bet that you glanced at the opening paragraph of this section and thought about skipping right over it, certain that you could understand the gist of the article without having to read that paragraph. Or maybe you did skip right over it. “Too much work” your brain told you. Exactly the point: 12-13% more work. And, as every attorney knows, more work for the busy reader equals an unhappy reader. That alone proves the thesis. We should retire the use of all caps in our documents. Using all caps adds nothing to the document and, in fact, detracts from the overall effect. Most people who use them are doing so because they want to include some “contrast” in their documents but have not thought through the best way to do so. In sections III and IV of this article, I will discuss in more detail the importance of “contrast” in document design.²⁵ Suffice to say at this point that contrast is an important goal. Using all caps, the only choice when we had typewriters, is not the way to achieve it today. Word processors afford us a variety of more legible — and thus better — alternatives.

Psychologists have postulated theories about the all caps phenomenon. The most commonly cited reason for the slow down is the way we see and read words. Some scientists believe that adults read at least in part by the shape of the word, primarily the top shapes of words. The legibility depends on the ascenders; letters above the midline such as “b” and “t” rather than descenders such as “p.” For example, look at this graphic:²⁶

Legibility depends on the tops of

You can probably easily read these words despite the deletion of the bottom half.²⁷

Legibility depends on the tops of

The same is not necessarily true if you erased the top halves of the words; without the top half, the words are harder to read. The use of all caps precludes reading by shape and instead shows the reader only monotonous rectangles. Our eye naturally wants to glide over and ignore the letters because they are the same height.²⁸ In order to counteract this tendency, the reader is forced to stop and read each individual letter because there is no distinction

2003) (specifying that most information in legal citations be presented in ordinary type with italics or underlining used for specific elements rather than the large and small capital letters once used for book titles and law reviews).

25. See *infra* pts. III and IV.

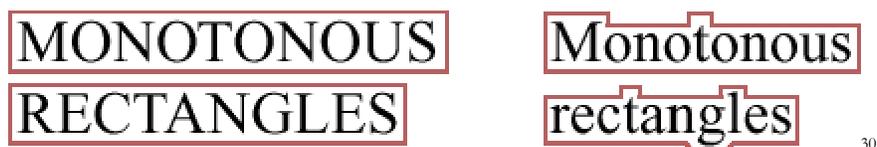
26. © Lynch & Horton, *supra* n. 10, at <http://www.webstyleguide.com/type/case.html>.

Reproduced per website permission.

27. © *Id.*

28. Lohr, *supra* n. 10, at 100.

between the letters.²⁹ This takes extra time, not something the legally trained reader often has to spare.



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Primarily, the upper contour of the word determines the recognizability of a shape. Although in normal reading people do not read solely by shape perception, we do tend to recognize more “sight words” by shape than by individual letters.³¹ Sight words are those words very familiar to the reader. Young readers often learn to memorize sight words such as “and” “the” “or.” As we mature, our sight word list expands.³² Presumably, lawyers have added legal terminology to their list of sight words: “negligence,” “statutory,” and the like.

The experts did not just perform their studies in a vacuum, but instead voiced the real-world implications of their studies: “in view of the evidence . . . that capitals greatly retard speed of reading in comparison with lower case . . . it would seem that all-capital printing should be eliminated whenever rapid reading and consumer views are a consideration.”³³ As the author of a popular layperson design book advises, “the PC is not a typewriter.”³⁴ Now that typewriters are a thing of the past, it is time for attorneys to retire the ill-suited practice of using all caps in headings, boilerplate, and any other place where the object is to emphasize rather than de-emphasize the content. Many other disciplines have embraced this advice, and law should now do the same.³⁵

29. Tinker, *supra* n. 24, at 57; Lohr, *supra* n. 10 at 100.

30. © Lynch & Horton, *supra* n. 10, at <http://www.webstyleguide.com/type/case.html>. For a discussion on the scientific theory, see Tinker, *supra* n. 24 at 60; Miles A. Tinker & Donald G. Paterson, *Influence of Type Form on Eye Movements*, 25 J. Experimental Psychol. 528 (Nov. 1939).

31. Tinker, *supra* n. 19, at 21-22.

32. *Id.* at 21.

33. Tinker, *supra* n. 24, at 61.

34. Robin Williams, *The PC is Not a Typewriter* (Peachpit Press 1992) [hereinafter Williams, *The PC is Not a Typewriter*]; see also Robin Williams, *The Non-Designer's Type Book* 47 (Peachpit Press 1998) [hereinafter Williams, *The Non-Designer's Type Book*]. She is a graphic designer, not the prolific comedian.

35. Even those attorneys responsible for updating the state UCC provisions should advise against the common usage of all capitals to satisfy the requirement in Section 2-316 that the exclusion or modification of an implied warranty be done by “conspicuous” language in the writing. Instead, using layout such as suggested at the end of this article will better guarantee conspicuousness.

Although common, using initial capital letters isn't the perfect solution. Initial caps include extra ascenders or "bumps" which can interfere with the recognition of sight words.³⁶ Instead, better-designed documents will avoid the use of caps altogether, except where the rules of grammar or court absolutely require them.

2. *I scream, you scream: A caution on using other cueing devices*

Although using all capital letters is a bad idea, employing some cueing devices is nevertheless important. The same researchers who studied the use of all capital letters also researched the use of cueing emphasis with *italics* and **boldface**. *Italics* also retard reading speed, up to 10% in situations that also included poor lighting and small type size.³⁷ Normally, however, the use of italics slows reading time up to 4.5% in a five-minute reading span.³⁸ Moreover, the same studies revealed that most test participants indicated a dislike for italics as compared to lower case letters.³⁹ At least one writer in the business world claims that people ignore italics and that they should be avoided.⁴⁰ But a popular professor of educational technology currently researching in the field disagrees, at least when italics are used for only a few words.⁴¹ The science really supports either proposition. Based on the hard numbers, using italics is not as bad as using all caps, and italics in a citation probably doesn't hurt anything. But the wise attorney would do well to avoid italicizing a whole passage.

Underlining has not undergone the same testing rigors as the use of all capital letters or italics. Instead, most of the studies involving underlining have looked at "mixed media," that is the combination of visual effects such as underlining, italics, and boldface. The purported reason for using mixed media is to "change the pace" or level of emphasis. Drs. Tinker and Paterson studied what they referred to as a medley of typographical arrangements and found results similar to those for all capital letters — a slowdown in reading speed of approximately 8-11%.⁴² Again, although it is impossible to parse out the exact percentage of speed reduction that underlining caused, it seems likely that underlining does slow reading rates. Underlining skews the visual pattern of letters as does the use of all capital letters.

36. Lynch and Horton, *supra* n. 10, at <http://www.webstyleguide.com/type/case.html>.

37. Tinker, *supra* n. 24, at 65.

38. Tinker & Paterson, *Influence of Type Form*, *supra* n. 23, at 359; Tinker, *supra* n. 23 at 444.

39. Tinker, *supra* n. 23, at 55. According to the study, 96% of the participants preferred non-italicized print.

40. Lohr, *supra* n. 10, at 100 (citing Claire Raines, *Visual Aids in Business: A Guide for Effective Presentations* (Crisp Pub. 1989)). Dr. Lohr teaches at the University of Northern Colorado. She conducts research emphasizing visual design to support cognitive processes.

41. *Id.*

42. Miles A. Tinker & Donald G. Paterson, *Readability of Mixed Type Forms*, 30 J. Applied Psychol. 631, 634 (Dec. 1946); *see also* Tinker, *supra* n. 24, at 62-63.

Boldface, on the other hand, does not appear to seriously slow reading speed. Boldface letters are perceived at a greater distance than letters in lower case print.⁴³ Moreover, Drs. Tinker and Paterson discovered no difference in the speed of reading boldface letters.⁴⁴ Thirty percent (30%) of the test participants actually preferred boldface. Based on these results, the psychologists recommend boldface as the cueing device of choice when the writer wishes to add emphasis.⁴⁵

3. *Que serif serif . . . The great font debate*

Why do we seem to gravitate towards Times New Roman or Garamond? What about using Arial? Just how awful a choice is Courier? Should you single or double-space your document? All of these questions have to do with typeface design. Many articles have been written about typeface, more than a reader could possibly hope to digest here. Or more than a reader might even be interested in digesting. Instead, I am going to focus only on distinguishing between broad classes of fonts.

Serif or not to serif? Research reveals flexibility

First: an oversimplified but very fast crash course in font lingo. Fonts are grouped in families according to certain visual attributes. Although there are six families,⁴⁶ the most important two for attorneys are those most commonly used in traditional text, serif and sans serif fonts.⁴⁷ A “serif” or “wing” is the extra little line dangling on the bottom of letters. Look carefully at the bottoms of the letters in this and the next sentence. You will most easily see these lines on the bottoms of the letters “m” and “n” as well as on the capital “Y.” Serif fonts all have those danglers. Sans serif fonts, on the other hand, have no such extra danglers, hence the “sans,” French for “without.” In other words, sans serif is “without wings.” A common sans serif font is Arial. Tahoma and Univers are other examples of sans serif type.

The popular view among graphic design experts is to use serif fonts, like Times or Garamond, for large blocks of text. Those designers conclude that

43. B.E. Roethlein, *The Relative Legibility of Different Faces of Printing Types*, 23 Am. J. Psychol. 1 (Jan. 1912)(cited in Tinker, *supra* n. 24, at 62).

44. Tinker, *supra* n. 24, at 62.

45. *Id.*; accord Williams, *The PC is not a Typewriter*, *supra* n. 34, at 53.

46. Any treatise on typeface will provide this information. See e.g. Lohr, *supra* n. 10, at 71; Robin Williams, *The Non-Designer's Design Book* 131 (2d. ed., Peachpit Press 2003).

47. There are other categories of course, and there are subcategories within the major font families. For example, serif fonts are also sub-grouped according to the shape of the serif and the slant of the thin/thick emphasis of certain letters such the letter “**O**” (deliberately enlarged so that you can see the thick/thin slant). Fonts like Times New Roman are part of the subgroup “old style serif” because the serifs are slanted and the emphasis of the letters is on a slant. Look at the above “O” to see what I mean.

serif fonts read more easily in blocks of print text.⁴⁸ They reason that reading is easier because the serifs “lead the eye from one letter to the next.”⁴⁹ But there is only minimal science to support the theory. The Tinker and Paterson studies demonstrated a slight 2.2% difference in reading speed between Roman and “Kabel”⁵⁰; the latter is a sans serif font but not one typically in use. [This is Kabel.] In a more recent study, researchers found that overall the serif fonts had greater legibility than sans serif.⁵¹ The percentage differences, however, were still relatively low compared to the dramatic slowdowns caused by all capital letters.⁵²

Because there is little conclusive evidence on the topic, at least one expert has shrugged off the debate and instead recommended that writers choose their fonts holistically based on consideration of the many competing factors.⁵³ The most typical serif fonts are **Times New Roman** and **Garamond** (the body text of this article is 11-point Garamond). Some typical sans serif fonts include (all in 12-point) **Arial**, **Franklin Gothic**, **Avant Garde**, and **Univers**.⁵⁴ I will discuss the use of both serif and sans serif fonts again in Part III and Part IV of this article under the topic of “contrast.”⁵⁵

Proportional spacing versus monospaced fonts: Rome is nicer than the Valley of Dead Typewriters

A font will have other recognizable attributes besides serifs (or not), for example, its width. Look at these two examples; both are serif fonts:

This is Courier 12 point.

This is Times New Roman 12 point.

48. Williams, *supra* n. 46, at 132; Williams, *The PC is Not a Typewriter*, *supra* n. 34, at 49 (claiming that “extensive studies” support her proposition that serif fonts are more “readable” as a word units whereas sans serif fonts are more independently legible with respect to independent letters); *contra* Lohr, *supra* n. 10, at 82, 90 (claiming that instructional design research shows no significant difference between serif and sans serif).

49. Lohr, *supra* n. 10, at 82 (citing Robin Williams and J. Tollett, *The Non-designer's Web Book: An Easy Guide to Creating, Designing, and Posting Your Own Web Site* 214 (Peachpit Press 1994). In fact, serifs originated during the days of stonemasonry in Rome; the cross strokes that we call serifs were used to keep the stones from chipping at the end of the letters. Lohr, *supra* n. 10, at 73.

50. Tinker, *supra* n. 24, at 48; Donald G. Paterson & Miles A. Tinker, *Studies of Typographical Factors Influencing Speed of Reading X. Style of Type Forms*, 16 *J. Applied Psychol.* 605 (Dec. 1932).

51. S.S. Jha & C.N. Daftuar, *Legibility of Type Faces*, 25 *No. 2 J. of Psychol. Research* 108,109 (1981)(studying the responses of college students in Gaya, India).

52. *See supra* pt. II.A.1.

53. Lohr, *supra* n. 10, at 71.

54. *Id.* at 82; Williams, *supra* n. 46, at 135.

55. *See infra* pts. III.A. and IV.A. In case you are impatient, I am going to recommend using serif fonts in the body of the text and sans serif in the headings as a way to contrast the two parts of the document and as an alternative to using all capital letters in the headings. All of the samples were provided in 12-point format so that you could see the variations in overall sizes.

Notice how the Times New Roman takes up less space on the line even though it actually has more characters on the line (29 including spaces versus 25). Why is that?

There are two reasons. The first is that 12-point size can mean different things in different fonts simply because the measurement is taken according to the “x-height” of the font, a variable number based on the height of a lower case “x” rather than an average of all the letters in the font.⁵⁶ The second reason is that Courier font is a “monospaced” font, which means that each letter takes up the same amount of width regardless of the natural letter shape. The letter “i” and “l” use the same width space as the letter “w.” In contrast, Times New Roman is a proportionally spaced font, so the “l” and “w” have different widths.

Here is another visual comparison:

will (Courier)
will (Times New Roman)

The bottom line: proportionally spaced fonts are easier to read. Drs. Tinker and Paterson demonstrated that American Typewriter, another monospaced font, causes a 4.7% reading delay.⁵⁷ That equals almost fifteen (15) words per minute. Dr. Tinker concluded that this slowdown was “significant.”⁵⁸ Moreover, in the last version of the test that Dr. Tinker ran, the test readers ranked the fonts in terms of preference; they rated five proportionally spaced fonts ahead of the monospaced type.⁵⁹

Bigger isn’t necessarily better

The Tinker–Paterson studies are not as helpful with respect to font size questions because the studies focused primarily on sizes smaller than what most court rules require. Most of the 1,500 journals the researchers studied used either 10-point or 11-point size fonts. Textbooks use 10-, 11-, or 12-point font, with 11-point being the most common.⁶⁰ For that reason, the researchers chose to test legibility relative to a 10-point Roman norm (similar to Times New Roman) and relative to a line length slightly longer than 3

56. A point is 1/72 of an inch so a 12-point “x” determines the size of the font even if all the other letters in that font are much larger, proportionally. Look again at the examples in the serif versus sans serif discussion. They are all 12-point. See the differences?

57. Tinker, *supra* n. 24, at 47-48.

58. *Id.* at 48.

59. Miles A. Tinker, *Criteria for Determining the Readability of Type Faces*, 35 J. Educ. Psychol. 385 (Oct. 1944) (results reproduced in Tinker, *supra* n. 24, at 52 tbl 4.4). Proportionally spaced fonts also dispense with the need for two spaces after ending punctuation. The reader can see the end of one sentence and beginning of another without the second space. Historically, writers placed two spaces after ending punctuation because of the problems with monospaced fonts. *See also* Williams, *The PC is Not a Typewriter*, *supra* n. 34, at 13-14.

60. Tinker, *supra* n. 24, at 67-68.

inches.⁶¹ Although the study included 12-point and 14-point types, 14-point type was considered the outlier, the farthest from the norm. The results showed that readers considered 11-point Roman the most legible for the line length.⁶² The larger 14-point font was more than 6% slower to read and 12-point was more than 5% slower.

There is no definitive scientific answer, however, to whether court rules should require 12-point or 14-point font, given a page that is 8.5 inches by 11 inches. The studies unfortunately did not test the relative legibility of font sizes using lines of text closer to what normally appears on the standard paper size used for most legal documents. There is some discussion that larger font sizes such as 14-point Roman cause longer fixation pauses, which in turn slows reading.⁶³ Dr. Tinker took care to caution that there was no easy way to draw a final conclusion as to optimal type size because other factors contribute to the equation, such as line length and line spacing.⁶⁴ Nevertheless, experts in the field recommend reserving 14-point and larger sizes for headings as opposed to blocks of text.⁶⁵

4. Length doesn't matter (well, maybe it does, a little)

The length — sometimes also referred to as the width — of the text lines affects legibility because of the way the eye reads a document. When we read, our eyes shift from one set of words to the next. Between each set, our eyes must pause before moving to the next set. These stops are called “fixation pauses.” If a line of text is too short, readers cannot effectively employ their peripheral vision, and that appears to reduce legibility.⁶⁶ In contrast, if a line of text is too long for the type size, readers must pause for a greater length of time while their head moves and their eyes search for the beginning of the next line.⁶⁷ When there are fewer fixation pauses, there is greater retention and comprehension.⁶⁸

The optimal line length depends on the size of the type. Unfortunately, the standard 6.5 inches of 12-point type in common use, that is, one-inch margins on the left and right sides of an 8.5-inch-wide page, decreases legibility by

61. Presumably this size was studied because many journals are printed in two-column format as are cases in West reporters and Westlaw and Lexis case downloads.

62. Tinker, *supra* n. 24, at 71 tbl. 5.2.

63. *Id.* at 72 tbl. 5.4.

64. *Id.* at 73.

65. *Handbook of Research for Educational Communications and Technology* 796 (David H. Jonassen ed., Simon & Schuster Macmillan 2001).

66. Tinker, *supra* n. 24, at 83.

67. *Id.*; see also Gary Bastoky, *Fundamentals of Document Design for the Technical Writer*, <http://www.bastoky.com/Readability.htm> (accessed Mar. 18, 2004).

68. Rob Carter, Ben Day & Philip Meggs, *Typographic Design: Form and Communication*, 92 (3d ed., John Wiley & Sons Publishers 2002).

more than 3%.⁶⁹ Based on those studies, more modern publications claim that the ideal line length for 12-point type should range from 2.75 to 4 inches.⁷⁰ Modern examples of text using narrow columns for printing include newspapers and online legal research documents from Lexis/Nexis or Westlaw.

Line length also helps explain why readers dislike the visual impact of a block quote. If the reader becomes used to reading more than six inches of line length, and then must switch to a shorter line length, the reader's "pleasant reading rhythm has been broken."⁷¹ Lines that are too short can tire the reader because the eye must find the next line too frequently.⁷²

5. One lead or two? Line spacing issues

The United States Supreme Court's font rule dictates "line leading" in documents.⁷³ As used in this context, "leading" is synonymous with spacing between lines of text. Pronounce leading to rhyme with "sledding" because it derives from the chemical element lead, the metal that protects Superman from kryptonite. In the days when printers used metal forms for typeset, they placed strips of lead between the lines of type.⁷⁴ The lingo survived the practice.

You may have noticed that the common word processing programs permit the user to set spacing to "exactly __ points." A point is 1/72 of an inch. In other words, the writer may set the spacing between the lines to 1/72 of an inch. Usually the leading is automatically set to be 20% larger than the font size. A 12 point font will have 14.4 point leading.⁷⁵ Naturally, the automatic settings derive from the Tinker studies. Dr. Tinker concluded that the optimal line spacing varies with font size and line length.⁷⁶ For the typical 8.5- by 11-inch paper with one-inch margins on either side⁷⁷ and using 12-point font, the

69. *Id.* at 83 tbl. The table refers to 36 picas; 36 picas equal 6 inches (one pica = 1/6 inch) and carries a 3.2 % reduction in legibility.

70. *See e.g.* Robert S. Laubach & Kay Koschnick, *Using Readability: Formulas for Easy Adult Materials* 38 (New Readers Press 1977).

71. Carter, Day & Meggs, *supra* n. 68, at 91.

72. *Id.*

73. S. Ct. R. of Ct. 33; *see infra* Appendix (listing the font rules for the state and federal appeals courts).

74. Williams, *The PC is Not a Typewriter*, *supra* n. 34, at 41.

75. Lohr, *supra* n. 10, at 92; *accord* Williams, *The PC is Not a Typewriter*, *supra* n. 34, at 41. To reiterate, a "point" is 1/72 of an inch. A font's size is determined by the size of its lower case "x" and that is why Times New Roman in 12 point looks a lot smaller than Arial in 12 point. The lower case "x" of each font is the same size.

76. Tinker, *supra* n. 24, at 88-107; *see also* Lohr, *supra* n. 10, at 96.

77. One inch margins on the left and right sides will leave 6.5 inches of line length. That equals 78 picas, each "pica" is 1/6th of an inch.

line leading should be somewhere between 1 to 5 points larger than the type size.⁷⁸ This is slightly larger than single spacing but not as large as 1.5 spacing.

6. The 50% rule: Balance the white space

Effective use of white space — the margins and the amount of text on the page — also affects legibility. At the time of the Tinker and Paterson studies, the average book devoted a little more than 50% of the page to print. This is known as the “50%” rule and still holds true today in most graphic design. Drs. Tinker and Paterson experimented with the white space ratio but found that most people overestimated the amount of ink actually on the paper.⁷⁹ When more than 900 college students were asked their opinions about the common “50% rule” practiced by most publishers, 89% of students agreed with the rule of thumb for legibility and aesthetic reasons.⁸⁰ Those students who disagreed cited concerns about wasted paper costs rather than legibility.⁸¹ According to one expert in adult learning theory, a pleasing amount of white space does not actually affect legibility, “but the reader *thinks* it does.”⁸²

B. Organization, or “bottom line up front”: Why headings and roadmaps work

Educational psychologists have also looked at the visual effectiveness of headings and summary or roadmap paragraphs. In those studies, headings are also called “signaling topic structures” and summaries or roadmaps are called “advance organizers.” Both signals and advance organizers help provide the reader with the hierarchical structure of the material. Ultimately, this contributes to better recall because the reader better understands the relationships among subtopics.⁸³

1. Roadmaps lay the groundwork for memory

Advance organizers such as roadmaps or summaries create a learning base that the reader can call upon as pre-learned material when later introduced to the material in more depth.⁸⁴ The information is learned the first time in the advance organizer and placed into working (short-term) memory if the related text is read immediately afterwards. Curiously, the educational psychologists have also found that a slight delay between the advance organizer and the

78. Tinker, *supra* n. 24, at 92.

79. Donald G. Paterson & Miles A. Tinker, *The Part-Whole Proportion Illusion in Printing*, 22 *J. Applied Psychol.* 421 (August 1938); *see also* Tinker, *supra* n. 24, at 111-12.

80. Tinker, *supra* n. 24, at 113.

81. *Id.*

82. Laubach & Koschnick, *supra* n. 70, at 36.

83. Robert F. Lorch et al., *Effects of Signaling Topic Structure on Text Recall*, 85 No. 2 *J. Educ. Psychol.* 281, 287 (1993).

84. John A. Glover et al., *Advance Organizers: Delay Hypotheses*, 82 No. 2 *J. Educ. Psychol.* 291 (1990).

associated text helps improve the memory performance, in theory because the information has been processed into long-term memory.⁸⁵

These studies have practical implications in legal documents including briefs, memos, or disclosure documents such as prospectuses. A “summary of the argument” section or a roadmap paragraph between hierarchical sections of the legal discussion can provide a knowledge base for the later subsection containing more detail.

2. Headings chunk the information

Headings help the reader search effectively for answers to questions about the text. They also provide the super-structure of the document, which leads to better concept recall.⁸⁶ Breaking information up into “chunks” under headings also makes sense from a memory standpoint. Cognitive psychologists have long known that “chunking” information raises recall rates.⁸⁷

Chunks are groups of related information. Research concludes that human short-term memory can process seven plus or minus two (7 ± 2) chunks at a time without losing information.⁸⁸ Chunking information can help increase the likelihood of retaining the information in the working memory.⁸⁹ Without it, the reader is overloaded and may completely stop processing the information.⁹⁰

Chunks are organized by some sort of hierarchy, such as in sequence or by category. Chunking happens in everyday life. For example, driving directions and recipes are chunked according to sequence. Directories and indexes are organized around topics or alphabetically. Just looking at this very page shows you an example of chunking; the page is divided into paragraphs. Each paragraph is a chunk of text and the paragraphs are arranged in a hierarchical order, one paragraph is dependent on the previous paragraphs.

85. *Id.* at 295.

86. Stephen C. Willhite, *Headings as Memory Facilitators: the Importance of Prior Knowledge*, 81 No. 1 J. Educ. Psychol. 115 (1989).

87. George A. Miller, *The Magical Number Seven, Plus or Minus Two: Some Limits on Our Capacity For Processing Information*, 63 Psychol. Rev. 81(1956) (also made available online by Stephen Malinowski with the author’s permission at <http://www.well.com/user/smalin/miller.html> (accessed Mar. 18, 2004)).

88. *Id.*; see also Lohr, *supra* n. 10, at 206.

89. *Id.* Phone numbers are the classic example of the phenomenon; it is much easier to remember a phone number when it is broken down into “chunks” of 3 and then 4 numbers, rather than a list of 7 numbers.

90. For a quick and persuasive self-test that proves memory improves with chunking, visit the At Bristol website, *Your Amazing Brain, Your Memory, Memory Chunks*, <http://www.youramazingbrain.org/yourmemory/default.htm>; *select* Memory Chunks (accessed July 1, 2004).

Headings help create those chunks for the reader, thus improving the likelihood of the reader recalling the information. As Dr. Lohr succinctly states, “[c]hunking must work, or we wouldn’t be using it so much.”⁹¹

There is one caveat to this generality, however. In some studies, headings helped the reader recall the structure of the information package better than documents without headings, but not necessarily more of the details.⁹² For that reason, attorneys should take care to make those headings really count. If readers will better recall the headings than the details, the headings should be persuasive and contain the conclusion the attorney wants the reader to reach.

III. How Graphic Designers Apply the Science: the “CRAP” of the Document

Graphic designers have studied legibility factors and have used the science as a basis on which to construct textual design principles. Graphic designers, like attorneys, are paid to create persuasive documents that maximize comprehension and retention of the printed material. In light of the legibility studies discussed earlier, the methodology of large-scale design in a purely textual document becomes relatively easy to comprehend. Graphic designers refer to four major elements in a document’s structure, which you can remember by Robin William’s acronym “CRAP”:⁹³

Contrast
Repetition
Alignment
Proximity

The acronym “CRAP” is wonderfully memorable and even parallels legal writing’s beloved “CRAC,”⁹⁴ but it makes little sense to talk about the four elements in that order. Instead, for ease of comprehension, this section is organized as follows:

Contrast
Proximity
Alignment
Repetition

91. Lohr, *supra* n. 10, at 206.

92. Glover, *supra* n. 84, at 295.

93. Williams, *supra* n. 46, at 13. With apologies to the sensibilities of the reader. But it grabbed you, didn’t it?

94. “CRAC” is an alternative shorthand for the “IRAC” paradigm for explaining a rule of law and its application to the facts of the case: Conclusion (rather than Issue), Rule, Application, Conclusion. *See e.g.* Linda H. Edwards, *Legal Writing and Analysis* ch. 8, 9 (Aspen L. & Bus. 2003); Richard K. Neumann, Jr., *Legal Reasoning and Legal Writing: Structure, Strategy and Style* ch. 10 (4th ed., Aspen L. & Bus. 2001); *see also Special Issue, The Value of IRAC*, 10(1) *The Second Draft* (Nov. 1995) (available at the Legal Writing Institute’s website at <http://www.lwionline.org/publications/seconddraft/nov95.pdf> (accessed Mar. 18, 2004)).

A. Contrast: Vary fonts, not capitalization within the same font

To present a hierarchy in the information, design experts use contrasting typefaces.⁹⁵ This helps chunk the material. Most people implicitly understand this principle. As the science has proven and this article has stressed, however, using all capital letters is the worst thing you can do if you want your headings to be legible and easy to read. Oregon and South Dakota have recognized this research finding and limit the use of all capitals in briefs.⁹⁶

Instead, graphic designers teach us to develop contrast by varying the look of the letters. There are two related ways to increase contrast on the black and white printed page: vary heavy/dark/boldface lettering with light lettering, and vary the style of the letters, in other words, the font families.⁹⁷ The simplest way to do this is to employ both a serif and a sans serif font in the document. Moreover, because at least some designers believe that serif fonts are easier to read when dealing with large amounts of text, it makes sense for attorneys to choose serif fonts for the body of their documents.

Sans serif fonts — the fonts easier to read on computers, overheads, and the like — provide a visual contrast to serif fonts. As most attorneys already implicitly know, headings are supposed to stand out in a legal document. Headings should visually count. Providing visual contrast goes a long way to further that principle. As one designer suggests, “if two items are not exactly the same, then make them different. Really different.”⁹⁸ Thus, assuming you are using a serif font such as Times New Roman or Garamond for your text, sans serif fonts are a good alternative for headings. To provide more visual contrast, use boldface or a heavier weight sans serif font (such as **Arial Black** or **Futura Md BT**

This article uses contrast in its design. The headings are written in Univers and I have boldfaced the headings to provide a dark/light contrast. **So my headings look like this.** I have varied the font size to help show the overall hierarchy of the headings. Additionally, I have included some use of italics, taking the slight risk that there will be a decrease in reading speed, but keeping my headings short enough, no more than one line, to minimize the impact. I have certainly avoided any use of all capital letters. Robin Williams believes in an even greater weight to the boldface, something like **Arial**

95. Williams, *supra* n. 46, at 63-78; *accord* Lohr, *supra* n. 10, at 159-62; Lynch and Horton, *supra* n. 10, at <http://www.webstyleguide.com/page/hierarchy.html> (accessed Mar. 19, 2004).

96. Or. R. Sup. Ct. 5.05(4)(f) (“Briefs printed entirely or substantially in uppercase are not acceptable.”); S.D. R. App. Ct. 15-26a-66(b)(1) (“The use of all-capitals text may be applied only for case captions and section names.”).

97. Williams, *supra* n. 46, at 63-78.

98. *Id.* at 63; *see* Lohr, *supra* n. 10, at 161.

Black. That looked too radically different for me to use in this article. I acknowledge the better contrast, but followed a personal preference.

Ultimately, contrast helps the reader chunk the information because the writer can control where the reader looks first. The overall arrangement of the chunks influences how the document is initially perceived. The writer thus needs to consider the initial impression.⁹⁹ In law, particularly in brief writing and long contracts, this leads to a caveat about following the general advice for headings when designing the Table of Contents page. Because the Table of Contents should itself be a well-designed visual document, attorneys may wish to refrain from repeating the heavy fonts of the headings as they appear within the document. A table of contents that repeats the heavy fonts from the interior of the document will disturb the 50% rule of white space to ink and will be less legible. The writer will have unwisely sacrificed legibility for uniformity and the reader may well forego looking at the “big picture” that the Table of Contents normally provides. Court rules and common practices do not require attorneys to duplicate the font and layout specifics of the headings as long as the wording itself is duplicated in the Table of Contents.

B. Proximity: Keep related items related in layout

Because writers want their readers to be able to understand the hierarchy when they *look* at the document, as well as when they read it, writers must also consider proximity as a design principle. Proximity is important because aligning items on the page “creates a stronger cohesive unit.”¹⁰⁰ The science indicates that too many fixation pauses create a more difficult document; thus, the writer should strive for more visual uniformity. For example, a heading that is followed by too many vertical spaces (hard returns) will create too many fixation pauses and a less legible document.¹⁰¹

Proximity, in other words, provides organization.¹⁰² Placing things closer together denotes relationship whereas the opposite is true when items are spaced apart. For example, one of these lists shows a definite hierarchical relationship and one of the lists does not:

Stressful events

Major illness

Public speaking

Moving

Stressful events

Major illness

Public speaking

Moving

99. Lohr, *supra* n. 10, at 209.

100. Williams, *supra* n. 46, at 31.

101. *Id.* at 24-25.

102. *Id.* at 48.

Elements within the hierarchy may be separated to denote that relationship. The writer can easily do this in a textual document by manipulating white space, particularly between paragraphs. Adding one hard return between paragraphs will create the visual break needed to show the simple paragraph organization.¹⁰³ In contrast, keeping the headings close to the beginning paragraph of the section will show that the paragraph belongs with the heading. So, rather than adding a space after a heading, the writer should instead consider using no space between the heading and the start of the section. The extra space should be placed between the end of one section and the beginning of another.

Here is a visual of what I just explained as the best option:

End of subsection

Heading

Start of new subsection

A legal writer concerned about exceeding maximum page limits can gain back some extra room by using only one space between sentences and by using a space between paragraphs rather than a space plus an indented first line of the new paragraph. The practice of using two spaces between sentences and indented first lines to begin the new paragraph are merely remnants of days when attorneys had only typewriters at their disposal and were forced to use a monospaced font.¹⁰⁴ Using a monospaced font requires two spaces between sentences in order to provide enough visual cueing through width.¹⁰⁵ But using two spaces with proportionally spaced fonts will create extra gaps, which will cause the reader to experience a greater fixation pause between sentences as her eye searches for the next phrase.

Indenting can lessen legibility if the reader experiences an added delay while searching for the beginning of the new line. Moreover, if the paragraph already has a hard return between the end of the last paragraph and the beginning of the next, there is no need to add an additional break of indenting unless line spacing requirements suggest otherwise.¹⁰⁶

103. Carter, Day & Meggs, *supra* n. 68, at 97 (“An important goal for a designer is to distinguish typographically one thought from another, clarify content, and increase reader comprehension. Clear separation of paragraphs in a body of text is one way to accomplish this goal.”) The authors caution against using a hard return if the writing is all short choppy paragraphs because the extra space could be “very disturbing.” *Id.*

104. Obviously, if the court rules require a monospaced font such as Courier, then the attorney should weigh the relative visual advantages of the suggestions made in this paragraph.

105. Williams, *The PC is Not a Typewriter*, *supra* n. 34, at 13-14; Williams, *The Non-Designer's Type Book*, *supra* n. 34, at 191-92.

106. The general advice to use an extra space between paragraphs rather than an extra space plus an indented first line is premised on optimal line leading. For 12-point Times New Roman, the optimal line leading is something slightly less than 1.5 spacing. *See supra* pt. II.A.5.

C. Alignment

1. *The body of the text*

Popular design author Robin Williams complains that “[d]esign beginners tend to put text and graphics on the page wherever there happens to be space, often without regard to any other item on the page.” Alignment concerns lining the text up with a vertical line somewhere on the page. With text, the three common alignments are “right aligned,” “centered,” and “left aligned.”

This line is right aligned.

This line is centered.

This line is left aligned.

Left aligned is most commonly used in text and according to experts is considered the “easiest to read.”¹⁰⁷ For that reason, attorneys should probably stick to that option.

2. *There isn’t much justification for justified text*

Design experts have some disagreements when it comes to justifying text, but the majority seems to favor leaving the text left aligned rather than fully justified. Text that is “fully justified” is lined up at both the left and right sides. This is common practice in professional printing. The legibility danger is the odd spacing that can result between letters or words. And, even with the correcting mechanisms available in word processing programs,¹⁰⁸ some experts claim that “justified text blocks often suffer from poor spacing and excessive hyphenation and require manual refinement.”¹⁰⁹ The problems are compounded when the paragraph contains a legal citation. By the way, I fully justified this paragraph so that you could see the difference. Notice the extra spacing between some of the words?

For desktop publishing, then, the choice should be different. According to some experts, keeping the text left-aligned affords the greatest legibility because there is no adjustment needed to word spacing and because “the resulting ‘ragged’ right margin adds variety and interest to the page without interfering with legibility.”¹¹⁰

If, however, the writer is not able to choose the leading, the advice may change. For example, if a court rule requires a document to be double spaced, then indenting may be a better visual option than inserting an extra space between paragraphs.

107. Lohr, *supra* n. 10, at 163; accord Williams, *The Non-Designer’s Type Book*, *supra* n. 34, at 116. Obviously the authors are talking about reading in languages that move from left to right. Hebrew, on the other hand, might not be as readable in a left-aligned format.

108. The technical term is “kerning.” Most word processing programs have this capability. See also *infra* n. 114 and accompanying text.

109. Lynch & Horton, *supra* n. 10, at <http://www.webstyleguide.com/type/align.html>.

110. *Id.*

Robin Williams gives conflicting advice with respect to “fully justified” text. In one book, she advises the writer to keep the right side as “smooth as possible.”¹¹¹ In another book, she cautions that fully justified text can create odd spacing between letters and words.¹¹² Additionally, she claims that professional publishers are moving towards leaving the right margin unjustified.¹¹³ The concept of “kerning,” not discussed in this article, theoretically could help with that problem but is most often used to adjust spacing between letters of large fonts thirty (30) points and larger.¹¹⁴

3. Centered and left-aligned text don't match

Finally, design experts also warn writers away from using more than one text alignment on the page.¹¹⁵ The contrast and visual cueing a heading demands does not also require a centered alignment to alert the reader. In fact, it might be less legible that way, especially if the writer mixes indents with centered headings; the result is a “messy page” with lines in too many places.¹¹⁶ Last, mixing alignments can also make it difficult for the reader to determine where in the outline hierarchy a centered heading belongs.

D. Repetition

Attorneys should easily understand this concept as it applies to legal documents: uniformity throughout the document's overall design. If a heading that is numbered **I.** (Roman numeral) appears in a certain size and type, then the next Roman numeral should appear in the same size and type. Spacing between headings should remain consistent throughout. Chunking styles should also repeat. Readers crave consistency because it helps organize the information and unify the hierarchy.¹¹⁷ Thus, attorneys should carefully edit to guarantee that the style of each outline level is consistent throughout the document.

IV. What am I Supposed to do About It? **Translation into Legal Document Design**

One easy answer would be to use a font specifically designed for lawyering documents. Other disciplines have developed fonts specific to their discipline. Times Roman derives its name from the *London Times*, which commissioned the font in 1931 for its newspaper.¹¹⁸ Web designers have also introduced a font named “Georgia,” which is a serif font that is easier to read on a screen than the

111. Williams, *The Non-Designer's Type Book*, *supra* n. 34, at 116.

112. Williams, *The PC is Not a Typewriter*, *supra* n. 34, at 45-46; *see* Lohr, *supra* n. 10, at 95.

113. Williams, *The PC is Not a Typewriter*, *supra* n. 34, at 45-46.

114. Lohr, *supra* n. 10, at 94.

115. Williams, *supra* n. 46, at 38-48.

116. *Id.* at 40-41.

117. *Id.* at 55.

118. Myfonts.com, *Times New Roman*, <http://www.myfonts.com/fonts/linotype/times-new-roman/> (accessed Mar. 19, 2004).

common print serif fonts.¹¹⁹ Perhaps the most interesting of the specific fonts comes from the European Committee for Uniformity of Type Design and Type Safety, which conducted an international design contest in order to obtain a font legible at high speeds in order to best serve and protect European drivers.¹²⁰ The winning entry combined the interdisciplinary skills of psychologists, engineers and graphic designers and introduced the world to “Euroface.”



According to the press release, Euroface is 42% more legible at the speed of 80 km/h (about 48 mph) than standing still, and at 120 km/h (about 72 mph) legibility reaches a legibility factor “that is not far below. . . the absolute legibility world record measured in 1982 in simulated conditions in a research and test centre in Nizhniy Olenek near the Arctic Circle by a team of Russian typographers.”¹²¹

We need something like that in law to streamline the fonts rules of the various courts in the country. Perhaps someday, a group interested in furthering legal writing will commission such a font.

In the meantime, by incorporating all of the concepts of Parts I and II, the science and graphic design concepts, I have generated an example format for a well-designed textual document. This is only one potential formula; there are certainly other options and there may even be better options.¹²² I would be negligent if I did not point out that a few courts’ rules will not permit following this suggested format. The Appendix following the article charts the font rules of state and federal courts; it includes an entry that answers the question of whether the sample formatting may be used in that court. Also worthy of note is the Seventh Circuit’s impressive website discussion of graphic layout concepts.¹²³

119. Lohr, *supra* n. 10, at 76.

120. Bügleichenhaus, *supra* n. 18, at <http://www.typotheque.com/articles/euroface.html>. You should wave the page in front of you very fast to get an idea of what it is supposed to look like while driving at high rates of speed. That’s what I and all of my peer editors did, anyway.

121. *Id.* No, seriously, the Arctic Circle. This little nugget of minutiae makes reading the rest of the article all worthwhile, *n’est-ce pas?*

122. There are certainly other ways to design a document that would harmonize with the science and resulting design principles. My example provides only rules that flow from the principles. “Rules are not necessarily sacred, principles are.” Franklin Delano Roosevelt, *Address to Young Democrats Clubs Aug. 24, 1935*, in *FDR Speaks* (Henry Steele Commager ed., Washington Records, Inc. 1960) (LP) (available at <http://www.bartleby.com/66/88/46988.html>).

123. *Guidelines for Briefs*, *supra* n. 13, at <http://www.ca7.uscourts.gov/Rules/type.pdf>.

Here is the suggested formatting. As you search for a sample document, keep in mind that this article was written using the sample format style.

A. Contrast

Headings

- ▶ Incorporate them to help chunk the material for the reader.
- ▶ Use sans serif and in a dark/heavy weight such as **Arial** (bolded) or **Arial Black**.
- ▶ Vary the size of the headings to show hierarchy, moving from larger to smaller.
- ▶ Avoid using all capital letters as a way to show contrast or hierarchy or anything else.
 - This is the #1 recommendation this article gives.
 - The research is so conclusive: words set in all caps are the least legible of all.¹²⁴
- ▶ Use italics minimally but as needed to show hierarchy or cueing.
- ▶ Indent lightly to help connote hierarchy, but don't center the headings.
- ▶ You do not need to use the same contrasting dark sans serif font in your Table of Contents as you did in the headings contained in the document's body if it would be too hard to read.
 - The principle behind document design is always to maximize legibility.
 - Don't feel obligated to compromise the "50% rule" for uniformity's sake.
 - No court rules require font uniformity between the Table of Contents and the body of the document.

Text

- ▶ Contrast the typeface (font) with that used in the headings.
- ▶ Although there is some debate, serif fonts are the norm for large blocks of text.
 - Unless the court rules require otherwise.
 - Given the choice, use a proportionally spaced font such as Times New Roman or Garamond.
 - Corollary: avoid monospaced fonts such as Courier.
- ▶ If allowed, use the optimal line leading for a 12-point font document of something slightly less than 1.5 spacing (14.4 point spacing is optimal).

B. Proximity

- ▶ Keep the text related to the headings to show the interrelationship.
- ▶ Add a space between paragraphs to allow white space to help create visual chunking.

124. Williams, *The Non-Designer's Type Book*, *supra* n. 34, at 47; *see also* Carter, Day & Meggs, *supra* n. 68, at 91; *supra* pt. II.A.1.

► Think about eliminating indentations to cue the beginning of new paragraphs; at the very least, minimize any indentation.

C. Alignment

The standard computer paper size, 8.5 by 11 inches, actually does not provide for maximum legibility at the font sizes required by most courts. In fact, the better thing for courts to do would be to move to the dual column printing that is already a feature of computer-assisted legal research sources such as Westlaw and Lexis. Nevertheless, this is what we can do with the current limitations:

► **Left-justified**

- This reads more easily than fully justified, at least according to some graphic designers.

► **Slightly wider than one inch margins on the left and right sides (8.5- by 11-inch paper).**

- The best line length for the font size commonly used is slightly less than 6 inches.

- To achieve this, slightly increase your left and right margins beyond the one-inch standard.

► **Avoid using centering or wide indents in order to minimize fixation pauses, which make the reader's eye do more work finding the next line.**

D. Repetition

► **Be very careful to make all hierarchies consistent throughout.**

V. Conclusion

If we accept the acknowledged science about legibility and the related concept of information retention, then we must also accept as true the conclusion that a lawyer who is able to effectively manipulate textual design will create a more credible and a more persuasive document. A visually well-designed document will enhance that document's readability, and the author/designer will reap the benefits of a more easily comprehensible document. Thus, attorneys should keep the visual design arrow handy in their quiver of persuasive techniques.

Appendix

This section includes all federal appellate and state court rules affecting typography used in briefs.

For court rules that set a maximum character/inch number, you should know that there are about 15 characters per inch in 12-point Times New Roman. Remember that a pica is 1/6 of an inch.

Federal Courts

General Rule

Rule: Fed. R. App. P. 32(a)(5), (6)

Specific Fonts: 14 point proportionally spaced, 102 characters/inch
monospaced

May Use Optimal Layout? Yes

Font Rules: (5) Typeface. Either a proportionally spaced or a monospaced face may be used. (A) A proportionally spaced face must include serifs, but sans-serif type may be used in headings and captions. A proportionally spaced face must be 14-point or larger. (B) A monospaced face may not contain more than 102 characters per inch. (6) Type Styles. A brief must be set in a plain, roman style, although italics or boldface may be used for emphasis. Case names must be italicized or underlined.

Supreme Court

Rule: Sup. Ct. R. 33

Specific Fonts: 14 point proportionally spaced, 102 characters/inch
monospaced

May Use Optimal Layout? Yes

Font Rules: The text of every booklet-format document, including any appendix thereto, shall be typeset in Roman 11-point or larger type with 2-point or more leading between lines. The typeface should be similar to that used in current volumes of the United States Reports. Increasing the amount of text by using condensed or thinner typefaces, or by reducing the space between letters, is strictly prohibited. Type size and face shall be consistent throughout. Quotations in excess of 50 words shall be indented. The typeface of footnotes shall be 9-point or larger with 2-point or more leading between lines. The text of the document must appear on both sides of the page.

1st Circuit

Rule: Uses Fed. R. App. P. 32 (a)(5)

Specific Fonts: 14 point proportionally spaced, 102 characters/inch
monospaced

May Use Optimal Layout? Yes

Font Rules: *See supra*, at Fed. R. App. P. 32. No local rule.

2d Circuit

Rule: Uses Fed. R. App. P. 32(a) with a proviso

Specific Fonts: 14 point proportionally spaced, 102 characters/inch monospaced or 12 points or larger for printed pamphlets

May Use Optimal Layout? Yes

Font Rules: (a) Form of Brief. Briefs must conform to FRAP Rule 32(a), with the proviso that, if a litigant prefers to file a printed brief in pamphlet format, it must conform to the following specifications: ...Font size: 12-point type or larger, for text and footnotes.

3d Circuit

Rule: Uses Fed. R. App. P. 32(a) and also Local App. R. 32.1

Specific Fonts: 14 point proportionally spaced, 102 characters/inch monospaced

May Use Optimal Layout? Yes

Font Rules: (c) Typeface. Briefs shall comply with the provisions of F.R.A.P. 32(a)(5) and (6).

4th Circuit

Rule: Uses Fed. R. App. P. 32

Specific Fonts: 14 point proportionally spaced, 102 characters/inch monospaced

May Use Optimal Layout? Yes

Font Rules: *See supra*, at Fed. R. App. P. 32. No local rule.

5th Circuit

Rule: Uses Fed. R. App. P. 32(a) and also Local App. R. 32.1

Specific Fonts: 14 point proportionally spaced, 102 characters/inch monospaced (footnotes 12 point proportionally spaced typeface, or 122 characters per inch or larger in monospaced typeface)

May Use Optimal Layout? Yes

Font Rules: 32.1 Typeface. Must comply with F. R. App. P. 32(a)(5), except that footnotes may be 12 point or larger in proportionally spaced typeface, or 122 characters per inch or larger in monospaced typeface.

6th Circuit

Rule: Uses Fed. R. App. P. 32(a)

Specific Fonts: 14 point proportionally spaced, 102 characters/inch monospaced

May Use Optimal Layout? Yes

Font Rules: *See supra*, at Fed. R. App. P. 32. No local rule.

7th Circuit

Rule: Circuit rule 32(b)

Specific Fonts: 12 point proportionally spaced (footnotes 11 point)

May Use Optimal Layout? Yes

Font Rules: (b) A brief need not comply with the 14-point-type requirement in Fed. R. App. P. 32(a)(5)(A). A brief is acceptable if proportionally spaced type is 12 points or larger in the body of the brief, and 11 points or larger in footnotes.

8th Circuit

Rule: Uses Fed. R. App. P. 32(a)

Specific Fonts: 14 point proportionally spaced, 102 characters/inch monospaced

May Use Optimal Layout? Yes

Font Rules: *See supra*, at Fed. R. App. P. 32. No local rule.

9th Circuit

Rule: Uses Fed. R. App. P. 32(a)

Specific Fonts: 14 point proportionally spaced, 102 characters/inch monospaced

May Use Optimal Layout? Yes

Font Rules: *See supra*, at Fed. R. App. P. 32. No local rule.

10th Circuit

Rule: 10th Cir. R. 32.1

Specific Fonts: 13 or 14 point proportionally spaced, 102 characters/inch monospaced

May Use Optimal Layout? Yes

Font Rules: The court prefers 14-point type as required by Fed. R. App. P. 32(a)(5)(A), but 13-point type is acceptable.

11th Circuit

Rule: Uses Fed. R. App. P. 32(a)

Specific Fonts: 14 point proportionally spaced, 102 characters/inch monospaced

May Use Optimal Layout? Yes

Font Rules: *See supra*, at Fed. R. App. P. 32. No local rule.

D.C. Circuit

Rule: Circuit rule 32(a)(1)

Specific Fonts: 11 point proportionally spaced, 102 characters/inch monospaced

May Use Optimal Layout? Yes

Font Rules: (1) Typeface. If a brief uses a proportionally spaced face as allowed by FRAP 32(a)(5), the court will accept a proportionally spaced face of 11-point or larger.

Federal Circuit

Rule: Uses Fed. R. App. P. 32(a).

Specific Fonts: 14 point proportionally spaced, 102 characters/inch monospaced

May Use Optimal Layout? Yes

Font Rules: *See supra*, at Fed. R. App. P. 32(a). No local rule.

State Courts**Alabama**

Rule: Ala. R. App. P. 32 (a)(5)

Specific Fonts: Courier New 13 point font

May Use Optimal Layout? No

Font Rules: A brief must be set in Courier New 13. . . . The type style must be plain, Roman style, although italics or boldface may be used for emphasis. Case names must be italicized or underlined.

Alaska

Rule: Alaska R. App. P. 513.5 (c)(1), (2)

Specific Fonts: 12 point monospaced, 12.5 or 13 point proportionally spaced

May Use Optimal Layout? Yes

Font Rules: (1) The text of documents, including headings and footnotes, must be at least (A) 12 point (10 monospaced characters per inch) Courier, or substantially similar monospaced text style; (B) 13 point (proportionally spaced) Times New Roman, Garamond, CG Times, New Century Schoolbook, or substantially similar serified, roman text style; or (C) 12.5 point (proportionally spaced) Arial, Helvetica, Univers, or substantially similar non-serifed text style. (2) When a typeface other than 12 point Courier is used, the party filing the document must also file a certificate that identifies the typeface and point size used in the document.

Arizona

Rule: Ariz. R. App. P. 14 (a)(1), (b)(i), (ii)

Specific Fonts: 14 point

May Use Optimal Layout? Yes

Font Rules: (a)(1) A brief shall comply with Rule 6(c), except that the brief's covers and the components of the brief excluded from the word count computation are exempt from the 14 point or 10 1/2 characters per inch typeface requirement. (b)(i) a principal brief prepared in a proportionately spaced typeface may not exceed 14,000 words, and a reply brief may not exceed 7,000 words, and neither may have an average of more than 280 words per page, including footnotes and quotations; and (ii) a principal brief prepared in a monospaced typeface may not exceed 40 pages, and a reply brief may not exceed 20 pages. (Rule 6 deals with Motions requirements, stating

that “Either a proportionately spaced typeface of 14 points or more, or a monospaced typeface of no more than 10 1/2 characters per inch, shall be used for text, quotations, and footnotes.”)

Arkansas

Rule: Ark. R. Sup. Ct. & Ct. App. 4-1 (a)

Specific Fonts: 10 point monospaced, 12 point proportionally spaced

May Use Optimal Layout? Yes

Font Rules: The style of print shall be either monospaced, measured in characters per inch, not to exceed 10 characters per inch, or produced in a proportional serif font, measured in point sizes, not to be less than 12 points.

California

Rule: Cal. R. Ct. 14 (b)(2), (3), (4), (11)(c)

Specific Fonts: 13 point computer, standard pica typewriter

May Use Optimal Layout? Yes

Font Rules: Computer briefs: (b)(2) Any conventional typeface may be used. The typeface may be either proportionally spaced or monospaced. (3) The type style must be roman; but for emphasis, italics or boldface may be used, or the text may be underscored. (4) Except as provided in (11), the type size, including footnotes, must not be smaller than 13-point. . . . Typewriter briefs: (11)(c) The type size, including footnotes, must not be smaller than standard pica, 10 characters per inch. Unrepresented incarcerated litigants may use elite type, 12 characters per inch, if they lack access to a typewriter with larger characters.

Colorado

Rule: Colo. R. App. P. 32(a), (a)(3)

Specific Fonts: 12 point

May Use Optimal Layout? Yes

Font Rules: Typewriter: (a) Briefs and other appellate papers produced through the use of a typewriter shall be in pica type at no more than 10 characters per inch, and the type shall be no smaller than 12 points.

Computer: (a)(3) The typeface of text and footnotes shall be no smaller than 12 points. Script and condensed typefaces are not permitted.

Connecticut

Rule: Conn. R. App. P. 67-2

Specific Fonts: 12 point or larger, Arial, Univers

May Use Optimal Layout? Yes except that cannot vary typeface of text and headings because only two sans serif fonts are acceptable

Font Rules: Only the following two typefaces, of 12 point or larger size, are approved for use in briefs: Arial and Univers.

Delaware

Rule: Del. R. Sup. Ct. 13 (a)(i)

Specific Fonts: 11 point

May Use Optimal Layout? Yes

Font Rules: All printed matter must appear in at least 11 point type on opaque, unglazed paper. All typed matter must be of a size type permitting not more than 11 characters or spaces per linear inch.

District Of Columbia

Rule: D.C. R. App. Ct. 32(a)

Specific Fonts: 11 point

May Use Optimal Layout? Yes

Font Rules: If printed records or briefs produced by the standard typographic process are filed, they shall be in not less than 11 point type.

Florida

Rule: Fla. R. App. P. 9.210(a)

Specific Fonts: 14 point Times New Roman, 12 point Courier New

May Use Optimal Layout? Yes (but headings might not be accepted in sans serif)

Font Rules: Computer-generated briefs shall be submitted in either Times New Roman 14-point font or Courier New 12-point font.

Georgia

Rule: Ga. R. App. Ct. 1(c)

Specific Fonts: 10 point Courier, 14 point Times New Roman

May Use Optimal Layout? Yes (but headings might not be accepted in sans serif)

Font Rules: Letter spacing and type or font size shall be no smaller than Courier 10 cpi, 12 point (or equivalent). Notwithstanding the ten (10) characters per inch requirement, the Court will accept in lieu thereof Times New Roman Regular 14 pt (Western).

Hawaii

Rule: Haw. R. App. P. 32(b)

Specific Fonts: 12 point

May Use Optimal Layout? Yes

Font Rules: The print must be standard 12 point pica or equivalent and yield no more than ten characters to the inch. In footnotes, pica type at no more than 12 characters per inch may be used.

Idaho

Rule: Idaho R. App. P. 36(c)

Specific Fonts: 12 point Times New Roman

May Use Optimal Layout? Yes (but headings might not be accepted in sans serif)

Font Rules: The type shall be no smaller than 12 point Times New Roman.

Illinois

Rule: Ill. R. Sup. Ct. 344(b)

Specific Fonts: 11 point

May Use Optimal Layout? Yes

Font Rules: If printed, the brief shall be on paper 6 3/4 by 10 inches in type not smaller than 11 point. If not printed, the brief shall be legibly and neatly produced on paper 8 1/2 by 11 inches, securely bound on the left side, double spaced, with the text in type not smaller than standard elite typewriting.

Indiana

Rule: Ind. R. App. P. 43(d)

Specific Fonts: 12 point

May Use Optimal Layout? Yes

Font Rules: The typeface shall be 12-point or larger in both body text and footnotes.

Iowa

Rule: Iowa R. App. P. 16(a)

Specific Fonts: 12 point Arrus BT, Arial, Courier New; 13 point Times New Roman

May Use Optimal Layout? Yes

Font Rules: Such matter must appear in no smaller than pica type (averaging no more than ten characters per inch) or in a 12 point Arrus BT, 12 point Arial, 12 point Courier New, 13 point Times New Roman, or substantially equivalent typeface.

Kansas

Rule: Kan. R. Sup. and App. Ct. 6.07(a)

Specific Fonts: 12 point

May Use Optimal Layout? Yes

Font Rules: Text shall be printed in a conventional style typeface no smaller than 12 point with no more than 12 characters per inch. If typewritten, the type shall be no smaller than pica (10 characters per inch).

Kentucky

Rule: Ky. R. Civ. P. 76.12(4)(a)(i), (ii)

Specific Fonts: 11 point computer, 12 point typewritten

May Use Optimal Layout? Yes

Font Rules: (i) If printed, briefs shall be in black ink on unglazed opaque white paper 6 1/8 by 9 1/4 inches in dimension, in type no smaller than 11-point, and enclosed in covers colored as specified in this rule. (ii) If typewritten, briefs shall be on unglazed white paper 8 1/2 by 11 inches in dimension in black type no smaller than 12 point set at standard width.

Louisiana

Rule: La. R. Sup. Ct. VII(2)

Specific Fonts: 11 or 12 point

May Use Optimal Layout? Yes

Font Rules: No less than 11 point typeface, but no more than 12 point typeface, shall be used.

Rule: La. App. Unif. R. 2-12.2(2)

Specific Fonts: 14 point Roman or Times New Roman

May Use Optimal Layout? Maybe

Font Rules: The size type in all briefs will be: (a) Roman or Times New Roman 14 point or larger computer font, normal spacing; or (b) no more than 10 characters per inch typewriter print.

Maine

Rule: Me. R. App. P. 9(f)

Specific Fonts: 12 point

May Use Optimal Layout? Yes

Font Rules: All printed matter must appear in at least 12 point font not smaller than 12 point Bookman on opaque, unglazed paper except that footnotes and quotations may appear in 11 point type.

Maryland

Rule: Md. R. App. Ct. and Spec. App. 8-112 (b), (c)

Specific Fonts:

May Use Optimal Layout? Yes, unless the official list indicates otherwise

Font Rules: (b) Typewritten Papers — Uniformly Spaced Type. (1) Type Size. Uniformly spaced type (such as produced by typewriters) in the text and footnotes shall not be smaller than 11 point and shall not exceed 10 characters per inch. (2) Spacing. Papers prepared with uniformly spaced type shall be double-spaced, except that headings, indented quotations, and footnotes may be single-spaced. (c) Printed and Computer-Generated Papers — Proportionally Spaced Type. (1) Type Size and Font. Proportionally spaced type (such as produced by commercial printers and many computer printers) in the text and footnotes shall not be smaller than 13 point. The Court of Appeals shall approve, from time to time, a list of fonts that comply with the requirements of this Rule. Upon the docketing of an appeal, the clerk of the appellate court shall send the approved list to all parties or their attorneys. The horizontal scaling ordinarily produced by the computer program may not be

altered in order to decrease the width of the characters or increase the number of characters on a line.

Massachusetts

Rule: Mass. R. App. P. 20(a)(2)

Specific Fonts: 12 point monospaced (Courier)

May Use Optimal Layout? No

Font Rules: The typeface shall be a monospaced font (such as pica type produced by a typewriter or a Courier font produced by a computer word processor) of 12 point or larger size and not exceeding 10.5 characters per inch.

Michigan

Rule: Mich. R. Ct. 7.212(b)

Specific Fonts: 12 point

May Use Optimal Layout? Yes

Font Rules: At least one-inch margins must be used, and printing shall not be smaller than 12-point type.

Minnesota

Rule: Minn. R. Civ. App. P. 132.01(1)

Specific Fonts: 11 point monospaced or 13 point proportionally spaced

May Use Optimal Layout? Yes

Font Rules: If a monospaced font is used, printed or typed material (including headings and footnotes) must appear in a font that produces a maximum of 10 1/2 characters per inch; if a proportional font is used, printed or typed material (including headings and footnotes) must appear in at least 13-point font.

Mississippi

Rule: Miss. R. App. P. 32(a)

Specific Fonts: 11 point

May Use Optimal Layout? Yes

Font Rules: All printed matter must appear in at least 11 point type on opaque, unglazed paper. . . . Type shall not be smaller than pica.

Missouri

Rule: Mo. R. Civ. P. 81.18(a)

Specific Fonts: 11 point monospaced, 13 point proportionally spaced

May Use Optimal Layout? Yes

Font Rules: The type used shall be not less than a ten pitch and ten characters to the inch in a fixed space type. If a proportionally spaced type is used, it shall be not smaller than 13 font, Times New Roman on Microsoft Word.

Montana

Rule: Mont. R. App. P. 27(b)

Specific Fonts: 11 point monospaced, 14 point proportionally spaced

May Use Optimal Layout? Yes

Font Rules: Either a proportionately spaced typeface of 14 points or more, or a monospaced typeface of no more than 10.5 characters per inch may be used in a brief, appendix, petition, motion or other paper. A proportionately spaced typeface has characters with different widths. A monospaced typeface has characters with the same advanced width. The brief's covers and the components of the brief excluded from the word count computation are exempt from the 14 point typeface requirement. Text shall be in roman, non-script text. Case names, headings and signals may be underlined or in italics or in bold.

Nebraska

Rule: Neb. R. Sup. and App. Ct. 9(B)(2)(a), (b)

Specific Fonts: 12 point Courier, Arial, Helvetica, Times, Times New Roman

May Use Optimal Layout? Yes

Font Rules: Type may be underscored, italicized, or boldfaced for emphasis. a. Computer-generated briefs shall be in not less than 12-point Courier, Arial or Helvetica, or Times or Times New Roman font, double spaced, with not less than 12 points of leading. b. Typewritten briefs shall be in nothing smaller than 10-inch pica type and double spaced.

Nevada

Rule: Nev. R. App. P. 32(a)

Specific Fonts: 11 point

May Use Optimal Layout? Yes

Font Rules: The type must be black in color, no smaller than 10 characters per inch, and be equally legible to printing.

New Hampshire

Rule: N.H. R. Sup. Ct. 16(11)

Specific Fonts: Unclear

May Use Optimal Layout? Maybe. There are no further indications whether "standard typewriter" means something monospaced such as Courier.

Font Rules: Each brief shall consist of standard sized typewriter characters produced on one side of each leaf only.

New Jersey

Rule: N.J. R. Ct. 2:6-10

Specific Fonts: (A monospaced font such as 12 point Courier New meets the requirements; no proportionally spaced font will meet it)

· May Use Optimal Layout? No

Font Rules: Papers shall be approximately 8.5 inches by 11 inches and, unless a compressed transcript format is used, shall contain no more than 26 double-spaced lines of no more than 65 characters including spaces, each of no less than 10-pitch or 12-point type. Footnotes and indented quotations may, however, be single-spaced. When a compressed transcript format is used, two transcript pages may be reproduced on a single page, provided that no compressed page contains more than 25 lines of no more than 55 characters including spaces, each of no less than 9-pitch type.

New Mexico

Rule: N.M. R. App. P. 12-305(b)

Specific Fonts: 12 point

May Use Optimal Layout? Yes

Font Rules: Briefs shall be typed or printed using pica (10 pitch) type style or a twelve (12) point typeface.

New York

Rule: N.Y. Civ. Pract. L. & R. 105(t), 2101(a)

Specific Fonts:

May Use Optimal Layout?

Font Rules:

105(t): Type size requirement. Whenever a requirement relating to size of type is stated in point size, the type size requirement shall be deemed met if the x-height of the type is a minimum of forty-five percent of the specified point size. Each point shall be measured as .351 millimeter. The x-height size shall be measured as it appears on the page. The x-height is the height of the lower case letters, exclusive of ascenders or descenders.

2101(a): Quality, size and legibility. Each paper served or filed shall be durable, white and, except for summonses, subpoenas, notices of appearance, notes of issue, orders of protection, temporary orders of protection and exhibits, shall be eleven by eight and one-half inches in size. The writing shall be legible and in black ink. Beneath each signature shall be printed the name signed. The letters in the summons shall be in clear type of no less than twelve-point in size. Each other printed or typed paper served or filed, except an exhibit, shall be in clear type of no less than ten-point in size.

North Carolina

Rule: N.C. R. App. P. 26(g)(1) and 28(j)

Specific Fonts: 12 point Courier or 14 point Times New Roman and maybe others

May Use Optimal Layout? Yes (but headings might not be accepted in sans serif)

Font Rules:

26(g)(1): All printed matter must appear in at least 12-point type.... No more than 27 lines of double-spaced text may appear on a page, even if proportional type is used. Lines of text shall be no wider than 6 1/2 inches.

28(j)(1) Type. (A) Type style. Documents must be set in a plain roman style, although italics or boldface may be used for emphasis. Case names must be italicized or underlined. Documents may be set in either proportionally spaced or non-proportionally spaced (monospaced) type. (B) Type size. 1. Non-proportionally spaced type (e.g., Courier or Courier New) may not contain more than 10 characters per inch (12-point). 2. Proportionally spaced type (e.g., Times New Roman), must be 14-point or larger. 3. Documents set in Courier New 12-point type, or Times New Roman 14-point type will be deemed in compliance with these type-size requirements.

North Dakota

Rule: N.D. R. App. P. 32 (a)(5)(A), (B), (6)

Specific Fonts: 12 point

May Use Optimal Layout? Yes (but headings might not be accepted in sans serif)

Font Rules: (5) Typeface. Either a proportionally spaced or a monospaced face may be used. (A). If proportional spacing is used, the typeface must be no smaller than a 12 point font with no more than 16 characters per inch. The text must be double spaced, except quotations may be single spaced and indented. Footnotes may be single spaced and must be in the same typeface as the text of the brief. (B). If monospaced typeface is used, the typeface must be a 12 point font having 10 characters per inch. The text, including quotations, and footnotes must be double-spaced with no more than 27 lines of type per page. (6) Type Styles. A brief must be set in a plain, roman style, although italics or boldface may be used for emphasis. Case names must be italicized or underlined.

Ohio

Rule: Ohio R. App. P. 19

Specific Fonts: 12 point

May Use Optimal Layout? Yes

Font Rules: All printed matter must appear in at least a twelve point type on opaque, unglazed paper.

Oklahoma

Rule: Okla. R. Sup. Ct. 1.11(a)

Specific Fonts: 12 point

May Use Optimal Layout? Yes

Font Rules: All briefs shall be printed or typed in clear type not less than 12-point.

Oregon

Rule: Or. R. Sup. Ct. 5.05(4)(f)

Specific Fonts: 11 point monospaced, 12 point proportionally spaced

May Use Optimal Layout? Yes

Font Rules: Uniformly spaced type shall not exceed 10 characters per inch (10 cpi). If proportionally spaced type is used for the text of the brief, it shall not be smaller than 12 point . . . Reducing or condensing the typeface in a manner that would increase the number of words in a brief is not permitted. Briefs printed entirely or substantially in uppercase are not acceptable.

Pennsylvania

Rule: Pa. R. App. P. 124(a)(4)

Specific Fonts: 11 point

May Use Optimal Layout? Yes

Font Rules: The lettering shall be clear and legible and no smaller than point 11.

Rhode Island

Rule: R.I. R. Sup. Ct. 16(d)

Specific Fonts:

May Use Optimal Layout? Unclear, it depends on what font the Rhode Island Reporter uses

Font Rules: The size of type to be used in printing briefs shall be that used in the text of Rhode Island Reports, as near as may be.

South Carolina

Rule: S.C. App. Ct. R. 238(c)

Specific Fonts: 12 point

May Use Optimal Layout? Yes

Font Rules: Type size shall be standard 12-point or larger.

South Dakota

Rule: S.D. R. Civ. App. P. 15-26a-66(a), (b)

Specific Fonts: 11 point monospaced, 12 point proportionally spaced

May Use Optimal Layout? Yes (but headings might not be accepted in sans serif)

Font Rules: (a) Monospaced type shall be no more or no less than ten characters per inch (10 cpi). (b) A proportionally spaced typeface must be 12-point or larger, in both body text and footnotes. (1) Type Style. Briefs must be set in a plain, roman style, although italics may be used for emphasis. Case names must be italicized or underlined. Boldface can only be used for case captions, section names, and argument headings. The use of all-capitals text may be applied only for case captions and section names. Nevertheless, quoted passages may use the original type styles and capitalization. (2) Type Volume Limitation. Appellant and appellee briefs are acceptable if they

contain no more than the greater of 10,000 words or 50,000 characters. . . . (3) Headings, footnotes, and quotations count toward the word and character limitations. The table of contents, table of cases, jurisdictional statement, statement of legal issues, any addendum materials, and any certificates of counsel do not count toward the limitations.

Tennessee

Rule: Tenn. R. App. P. 30(a)

Specific Fonts: 11 point

May Use Optimal Layout? Yes

Font Rules: All printed matters should be on paper 6 1/8 by 9 1/4 inches in type not smaller than 11 point and type matter 4 1/4 by 7 1/4 inches. If not printed, copies should be on paper 8 1/2 by 11 inches, double spaced, except for quoted matter, which may be single spaced, with the text not smaller than standard elite typewriting.

Texas

Rule: Tex. R. App. P. 9.4(e)

Specific Fonts: 11 point monospaced (Courier), 13 point proportionally spaced

May Use Optimal Layout? Yes

Font Rules: A document must be printed in standard 10-character-per-inch (cpi) non-proportionally spaced Courier typeface or in 13-point or larger proportionally spaced typeface.

Utah

Rule: Utah R. App. P. 27(b)

Specific Fonts: 13 point

May Use Optimal Layout? Yes (but headings might not be accepted in sans serif)

Font Rules: Either a proportionally spaced or monospaced typeface in a plain, roman style may be used. A proportionally spaced typeface must be 13-point or larger for both text and footnotes. Examples are CG Times, Times New Roman, New Century, Bookman and Garamond. A monospaced typeface may not contain more than ten characters per inch for both text and footnotes. Examples are Pica and Courier.

Vermont

Rule: Vt. R. App. P. 32(a)

Specific Fonts: 12 point

May Use Optimal Layout? Yes

Font Rules: All typewritten and printed matter must appear in at least 12-point type.

Virginia

Rule: Va. R. Sup. Ct. 5:6(a) (Supreme Court)

Specific Fonts: 12 point

May Use Optimal Layout? Yes

Font Rules: All printed matter must be in at least 12 point type.

Rule: Va. R. Sup. Ct. 5A:4(a) (Court of Appeals)

Specific Fonts: 11 point

May Use Optimal Layout? Yes

Font Rules: All printed matter must be in at least 11 point type.

Washington

Rule: Wash. R. App. P. 10.4(a)(2)

Specific Fonts: 12 point

May Use Optimal Layout? Yes

Font Rules: The text of any brief typed or printed must appear double spaced and in print as 12 point or larger type in the following fonts or their equivalent: Times New Roman, Courier, CG Times, Arial, or in typewriter fonts, pica or elite. The same typeface and print size should be standard throughout the brief, except that footnotes may appear in print as 10 point or larger type and be the equivalent of single spaced.

West Virginia

Rule: W. Va. R. App. P. 28(a)

Specific Fonts: 11 point monospaced, 12 point proportionally spaced

May Use Optimal Layout? Yes

Font Rules: The text shall be double-spaced and be no smaller than twelve point proportionally spaced or eleven point non-proportionally spaced type. Footnotes and indented quotations may be single-spaced and footnote text shall be no smaller than eleven point proportionally spaced or ten point non-proportionally spaced type.

Wisconsin

Rule: Wis. R. Ct. 809.19(8)(b)(3)(b), (c)

Specific Fonts: 11 point monospaced, 13 point proportionally spaced

May Use Optimal Layout? Maybe

Font Rules: (b). If a monospaced font is used: 10 characters per inch; double-spaced; a 1.5 inch margin on the left side and a one-inch margin on all other sides. (c). If a proportional font is used: proportional serif font, minimum printing resolution of 200 dots per inch, 13 point body text, 11 point for quotes and footnotes, leading of minimum 2 points, maximum of 60 characters per full line of body text. Italics may not be used for normal body text but may be used for citations, headings, emphasis and foreign words.

Wyoming

Rule: Wyo. R. App. P. 7.05(b)(3)

Specific Fonts:

May Use Optimal Layout? Yes (but headings might not be accepted in sans serif)

Font Rules: Briefs must be in no smaller type or font than 10 characters per inch. Fonts for word processors that will appear as no smaller than 10 characters per inch are Times New Roman 13, CG Times 13, or Courier 12.