

**AN ANALYSIS OF GRAPHIC COMMUNICATION IN
ANNUAL REPORTS: DOES THE USE OF
GRAPHICS VARY DEPENDING ON
THE FINANCIAL STATUS
OF THE COMPANY?**

By

KAYE E. WHITE WALKER

**Bachelor of Science
East Carolina University
Greenville, North Carolina
1977**

**Master of Arts
East Carolina University
Greenville, North Carolina
1981**

**Submitted to the Faculty of the
Graduate College of the
Oklahoma State University
in partial fulfillment of
the requirements for
the Degree of
DOCTOR OF PHILOSOPHY
May 1996**

COPYRIGHT

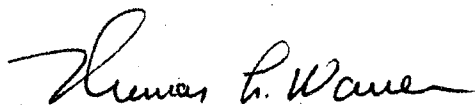
By

Kaye E. White Walker

May 1996

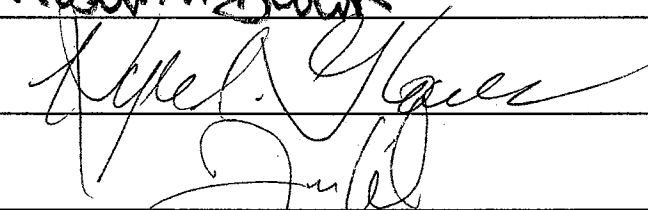
AN ANALYSIS OF GRAPHIC COMMUNICATION IN
ANNUAL REPORTS: DOES THE USE OF
GRAPHICS VARY DEPENDING ON
THE FINANCIAL STATUS
OF THE COMPANY?

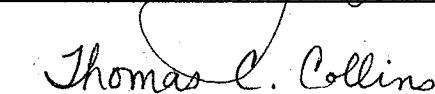
Dissertation Approved:



Dissertation Advisor







Dean of the Graduate College

PREFACE

Because graphic communication has always been one of my main topics of interest in technical writing, I thought writing my dissertation on an aspect of it would be a great opportunity. Furthermore, having done some general research in graphic communication before, I planned to build upon that work. I knew that I wanted the research project to include some aspects of document design so that I could examine how the graphics had been integrated with the text. Also, I wanted to examine for what purposes the corporations had used the graphics. The one piece missing from the picture was the specific type of document I would choose. That choice was difficult to make because so many documents fit the above criteria. I considered instruction manuals and product descriptions, but finally decided on corporate annual reports because of their uniform construction and their visual appeal. Some preliminary investigation yielded some statistics that piqued my interest in this topic, and thus I began.

Throughout the dissertation process, Dr. Thomas Warren, my major advisor, has been supportive and encouraging; and for his patient guidance, I would like to express my sincere appreciation. Likewise, I would like to express my appreciation to the other members of my committee: Dr. Robert Brown, Dr. Kyle Glover, and Dr. Thomas Wikle. Their guidance and support were also invaluable. And a special thanks goes to Dr. Brown who always had a few minutes to answer my questions.

My appreciation also extends to my family and many friends who offered many different kinds of assistance to help me complete this project. Without their support and assistance, this arduous project could not have been completed.

TABLE OF CONTENTS

Chapter	Page
I. INTRODUCTION	1
Purpose of the Research	1
Scope of the Project	3
Limitations of the Project	5
Definitions	6
Organization of Report	7
II. REVIEW OF LITERATURE	8
Rationales for Using Graphic Communication	9
Processing of Visual Information	12
Reading Graphic Communication as a Learned Skill.....	12
Eye Movement in Reading Visual Elements.....	13
Processing of Visuals/Graphics	14
Readability of Graphic Communication	16
Importance of Simplicity in Graphic Communication.....	17
Preparing Graphic Communication for Written Documents	18
Layout, Integration, Design, and Color	19
Types Graphic Communication	26
Annual Reports	29
History of Graphic Communication in Annual Reports	29
Readability of Annual Reports	35
SEC Guidelines	35
Preparing Graphic Communication for Annual Reports	36
Conclusions	37
III. METHODS AND MATERIALS	40
Selecting the Ten Companies	40
Designing and Preparing the Research Tools	42
Collecting the Data From Primary Sources	43
Analyzing the Data	44
Statistical Analyses.....	46
Summary.....	46

Chapter	Page
IV. FINDINGS OF THE RESEARCH	47
Characteristics Demonstrating Negligible Differences in Net Loss Reports	49
Typography	49
Layout	49
References	50
Captions	50
Integrity of Graphical Elements	50
Colors in Annual Reports	51
Changes in Visual Elements in Annual Reports	52
Total Numbers of Visual Elements	52
Tables	54
Photographs	56
Figures	58
Individual Types of Figures	60
Sizes of Photographs and Figures	65
Sizes of Photographs	66
Sizes of Figures	66
Subject Matter of Visual Elements	67
Subjects of Tables	67
Subjects of Photographs	68
Subjects of Figures	69
Placement of Visual Elements Within Annual Report Sections	70
Financial Highlights	70
Letter to the Stockholder	71
Narrative or Scope of Operations	72
MD&A	73
SEC Guidelines and Their Effect on Annual Reports	74
Characteristics Demonstrating Negligible Changes After 1989	75
Changes in Actual Numbers of Visual Elements After 1989	75
Tables	77
Photographs	80
Figures	80
Changes in Individual Types of Figures After 1989	82
Changes in Sizes of Photographs and Figures After 1989	87
Changes in Subject Matter of Visual Elements After 1989	87
Changes in Visual Elements Within the Annual Report Sections After 1989	87
Financial Highlights	88
Letter to Stockholders	88
Narrative/ Scope of Operations	89
Management's Discussion and Analysis	90
Chapter Highlights	92
Graphic Communication in Net Loss Reports	92
SEC Guidelines and Their Effect on Annual Reports	92
V. DISCUSSION OF FINDINGS	94
Net Losses Do Not Change Six Characteristics	94
Changes in Numbers of Visual Elements	96

Chapter	Page
Tables	97
Photographs.....	97
Figures.....	98
Changes in Types of Individual Figures Used	98
Changes in Sizes of Photographs and Figures	101
Changes in the Subject Matter of Visual Elements	101
Changes in Visual Placement Among the Annual Report Sections	102
Elements Unchanged the 1989 SEC Ruling	102
Changes in Numbers of Visual Elements After 1989.....	103
Tables	103
Photographs.....	104
Figures.....	104
Changes in Individual Types of Figures After 1989.....	104
Changes in Sizes of Photographs and Figures After 1989.....	105
Changes in Subject Matter of Visual Elements After 1989.....	105
Changes in Visual Elements Within Annual Report Sections After 1989	105
Summary	107
VI. CONCLUSIONS	108
Graphic Communication in Annual Reports in Net Loss Years	109
Graphic Communication in Net Loss Reports After the 1989 SEC Ruling.....	110
Effect of Conclusions on the Hypotheses.....	111
Conclusions About Individual Companies' Annual Reports.....	113
Significance of Research for Annual Report Readers.....	113
Possible Areas for Future Research.....	114
WORKS CITED	116
SUPPLEMENTAL BIBLIOGRAPHY.....	139
APPENDICES	160
APPENDIX A: GLOSSARY OF TERMS	161
APPENDIX B: SAMPLE SPREADSHEET USED FOR DATA COLLECTION	166
APPENDIX C: INTRODUCTION TO APPENDIX TABLES	169
APPENDIX D: TABLES D1-D10, SUMMARY DATA FOR SELECTED COMPANIES	171
APPENDIX E: TABLE E-1. TOTAL NUMBER OF VISUAL ELEMENTS BY COMPANY AND YEAR	192
APPENDIX F: TABLES F1-F3. SUMMARIES OF NUMBERS OF TABLES, PHOTOGRAPHS, AND FIGURES BY YEAR AND COMPANY	194

APPENDIX G: TABLES G1-G11. SUMMARIES OF TYPES OF FIGURES BY COMPANY, YEAR.....	198
APPENDIX H: TABLES H1-H10. SIZES OF ANNUAL REPORT PHOTOGRAPHS BY COMPANY, YEAR, AND ANNUAL REPORT SECTION	205
APPENDIX I: TABLES I1-I10. SIZES OF ANNUAL REPORT FIGURES BY COMPANY, YEAR, AND ANNUAL REPORT SECTION	236
APPENDIX J: TABLES J1-J10. SUBJECTS OF ANNUAL REPORT TABLES BY COMPANY, YEAR, AND ANNUAL REPORT SECTION	258
APPENDIX K: TABLES K1-K10. SUBJECTS OF ANNUAL REPORT PHOTOGRAPHS BY COMPANY, YEAR, AND ANNUAL REPORT SECTION	283
APPENDIX L: TABLES L1-L10. SUBJECTS OF ANNUAL REPORT FIGURES BY COMPANY, YEAR, AND ANNUAL REPORT SECTION	307
APPENDIX M: TABLES M1-M10 COLORS USED IN ANNUAL REPORT FIGURES BY COMPANY, YEAR, AND ANNUAL REPORT SECTION	345
APPENDIX N: TABLE N-1. CONVERSION OF FIGURE COLORS TO PANTONE® COLOR MATCHING SYSTEM	367

LIST OF TABLES

Table	Page
1. List of Companies With Net Losses During 1985-1994 By Company and Year	47
2. Summary of Differences in Figure Yearly Sizes For Net Loss Years	67
3. Summary of Changes in Net Loss Annual Reports and Changes in Net Loss Reports After the 1989 SEC Ruling	112
B-1. Sample Spreadsheet Used for Data Collection	167
D-2. Summary of Data Collected for Alcoa, 1985-1994	172
D-3. Summary of Data Collected for DuPont, 1985-1994	174
D-4. Summary of Data Collected for Exxon, 1985-1994	176
D-5. Summary of Data Collected for General Electric (GE), 1985-1994	178
D-6. Summary of Data Collected for General Motors (GM), 1985-1994	180
D-7. Summary of Data Collected for IBM, 1985-1994.....	182
D-8. Summary of Data Collected for International Paper, 1985-1994	184
D-8. Summary of Data Collected for Kodak, 1985-1994	186
D-9. Summary of Data Collected for Philip Morris, 1985-1994	188
D-10. Summary of Data Collected for Tenneco, 1985-1994	190
E-1. Total Number of Visual Elements by Company and Year	193
F-1. Summary of Numbers of Tables by Company and Year	195
F-2. Summary of Numbers of Photographs by Company and Year	196
F-3. Summary of Numbers of Figures by Company and Year	197
G-1. Companies' Bar Graphs by Year	199

Table	Page
G-2. Companies' Column Graphs by Year.....	199
G-3. Companies' Grouped Bar/ Column Graphs by Year.....	200
G-4. Companies' Divided Bar/Column Graphs by Year.....	200
G-5. Companies' Drawings by Year	201
G-6. Companies' Surface Graphs by Year	201
G-7. Companies' Pictograms by Year.....	202
G-8. Companies' Maps Year	202
G-9. Companies' Line Graphsby Year.....	203
G-10. Companies' Pie Graphsby Year.....	203
G-11. Companies' Miscellaneous Figures by Year.....	204
H-1 Yearly Sizes of Photographs in Alcoa's Annual Reports, 1985-1994	206
H-2 Yearly Sizes of Photographs in DuPont's Annual Reports, 1985-1994.....	208
H-3 Yearly Sizes of of Photographs in Exxon's Annual Reports, 1985-1994	211
H-4. Yearly Sizes of of Photographs in General Electric's Annual Reports, 1985-1994	215
H-5. Yearly Sizes of Photographs in General Motors' Annual Reports, 1985-1994	218
H-6. Yearly Sizes of Photographs in IBM's Annual Reports, 1985-1994	222
H-7. Yearly Sizes of Photographs in International Paper's Annual Reports, 1985-1994.....	225
H-8. Yearly Sizes of Photographs in Kodak's Annual Reports, 1985-1994	227
H-9. Yearly Sizes of of Photographs in Philip Morris' Annual Reports, 1985-1994	231
H-10. Yearly Sizes of of Photographs in Tenneco's Annual Reports, 1985-1994 (excluding photographs).....	234

Table	Page
I-1. Yearly Sizes of Figures in Alcoa's Annual Reports, 1985-1994 (excluding photographs).....	237
I-2. Yearly Sizes of Figures in DuPont's Annual Reports, 1985-1994 (excluding photographs).....	240
I-3. Yearly Sizes of Figures in Exxon's Annual Reports, 1985-1994 (excluding photographs).....	242
I-4. Yearly Sizes of Figures in General Electric's Annual Reports, 1985-1994 (excluding photographs)	244
I-5. Yearly Sizes of Figures in General Motors' Annual Reports, 1985-1994 (excluding photographs)	246
I-6. Yearly Sizes of Figures in IBM's Annual Reports, 1985-1994 (excluding photographs).....	248
I-7. Yearly Sizes of Figures in International Paper's Annual Reports, 1985-1994 (excluding photographs)	250
I-8. Yearly Sizes of Figures in Kodak's Annual Reports, 1985-1994 (excluding photographs).....	252
I-9. Yearly Sizes of Figures in Philip Morris' Annual Reports, 1985-1994 (excluding photographs).....	254
I-10. Yearly Sizes of Figures in Tenneco's Annual Reports, 1985-1994 (excluding photographs).....	256
J-1. Yearly Subjects of Tables in Alcoa's Annual Reports, 1985-1994.....	259
J-2. Yearly Subjects of Tables in DuPont's Annual Reports, 1985-1994	261
J-3. Yearly Subjects of Tables in Exxon's Annual Reports, 1985-1994	264
J-4. Yearly Subjects of Tables in GE's Annual Reports, 1985-1994	268
J-5. Yearly Subjects of Tables in GM's Annual Reports, 1985-1994	270
J-6. Yearly Subjects of Tables in IBM's Annual Reports, 1985-1994	273
J-7. Yearly Subjects of Tables in International Papers' Annual Reports, 1985-1994	275
J-8. Yearly Subjects of Tables in Kodak's Annual Reports, 1985-1994	277

Table	Page
J-9. Yearly Subjects of Tables in Philip Morris' Annual Reports, 1985-1994	279
J-10. Yearly Subjects of Tables in Tenneco's Annual Reports, 1985-1994	281
K-1. Yearly Subjects of Photographs in Alcoa's Annual Reports, 1985-1994	283
K-2. Yearly Subjects of Photographs in DuPont's Annual Reports, 1985-1994	285
K-3. Yearly Subjects of Photographs in Exxon's Annual Reports, 1985-1994	287
K-4. Yearly Subjects of Photographs in GE's Annual Reports, 1985-1994	290
K-5. Yearly Subjects of Photographs in GM's Annual Reports, 1985-1994	293
K-6. Yearly Subjects of Photographs in IBM's Annual Reports, 1985-1994	295
K-7. Yearly Subjects of Photographs in International Papers' Annual Reports, 1985-1994	298
K-8. Yearly Subjects of Photographs in Kodak's Annual Reports, 1985-1994	300
K-9. Yearly Subjects of Photographs in Philip Morris' Annual Reports, 1985-1994.....	303
K-10. Yearly Subjects of Photographs in Tenneco's Annual Reports, 1985-1994	305
L-1. Yearly Subjects of Figures in Alcoa's Annual Reports, 1985-1994	308
L-2. Yearly Subjects of Figures in DuPont's Annual Reports, 1985-1994	314
L-3. Yearly Subjects of Figures in Exxon's Annual Reports, 1985-1994	318
L-4. Yearly Subjects of Figures in GE's Annual Reports, 1985-1994	322
L-5. Yearly Subjects of Figures in GM's Annual Reports, 1985-1994	326
L-6. Yearly Subjects of Figures in IBM's Annual Reports, 1985-1994	328

Table	Page
L-7. Yearly Subjects of Figures in International Papers' Annual Reports, 1985-1994	332
L-8. Yearly Subjects of Figures in Kodak's Annual Reports, 1985-1994	335
L-9. Yearly Subjects of Figures in Philip Morris' Annual Reports, 1985-1994	337
L-10. Yearly Subjects of Figures in Tenneco's Annual Reports, 1985-1994	343
M-1. Colors Used in Graphics in Alcoa's Annual Reports, 1985-1994.....	346
M-2. Colors Used in Graphics in DuPont's Annual Reports, 1985-1994	348
M-3. Colors Used in Graphics in Exxon's Annual Reports, 1985-1994.....	350
M-4. Colors Used in Graphics in GE's Annual Reports, 1985-1994	352
M-5. Colors Used in Graphics in GM's Annual Reports, 1985-1994	354
M-6. Colors Used in Graphics in IBM's Annual Reports, 1985-1994.....	356
M-7. Colors Used in Graphics in International Paper's Annual Reports, 1985-1994.....	358
M-8. Colors Used in Graphics in Kodak's Annual Reports, 1985-1994	360
M-9. Colors Used in Graphics in Philip Morris' Annual Reports, 1985-1994.....	363
M-10. Colors Used in Graphics in Tenneco's Annual Reports, 1985-1994.....	365
N-1. Conversion of Figure Colors to Pantone® Color Matching System	368

LIST OF FIGURES

Figure	Page
1. Average Number of Visual Elements in Net Loss and All Reports	52
2. Average Number of Visual Elements in Net Loss and All Reports by Company	53
3. Average Number of Visual Elements in Net Loss Reports Compared with the ... Company Average.....	54
4. Average Number of Tables in Net Loss and All Reports	55
5. Average Number of Tables in Net Loss and All Reports by Company	55
6. Average Number of Tables in Net Loss Years Compared to Average Number for the Individual Company	56
7. Average Number of Photographs in Net Loss and All Reports	57
8. Average Number of Photographs in Net Loss and All Reports by Company	57
9. Average Number of Photographs in Net Loss Years Compared to Average Number for the Individual Company	58
10. Average Number of Figures in Net Loss and All Reports.....	58
11. Average Number of Figures in Net Loss and All Reports by Company.....	59
12. Average Number of Figures in Net Loss Years Compared to Average Number for Individual Company	60
13. Total Flow Charts, 100% Bar/Column Graphs, Organization Charts, and Time Lines in Net Loss and All Reports	62
14. Total Logos, Maps, Pictograms, Renderings, and Deviated Bar/Column Graphs in Net Loss and All Reports	63
15. Total Number of Bar Graphs, Drawings, Surface Graphs, Line Graphs, and Pie Graphs in Net Loss and All Reports	64
16. Average Number of Grouped Bar/Column Graphs for Net Loss and All Reports	64
17. Average Number of Divided Bar/ Column Graphs in Net Loss and All Reports by Company	65

Figure	Page
18. Average Number of Column Graphs in Net Loss and All Reports by Company	65
19. Number of Tables, Photographs, and Figures in Financial Highlights Section for Net Loss and All Reports	71
20. Number of Tables, Photographs, and Figures in Letters to Stockholders in Net Loss and All Reports.....	72
21. Number of Tables, Photographs, and Figures in the Narrative or Scope of Operations in Net Loss and All Reports.....	73
22. Number of Tables, Photographs, and Figures in the MD&A Section for Net Loss and All Reports	74
23. Average Number of Visual Elements in Net Loss and All Reports Before and After the 1989 SEC Ruling	76
24. Average Number of Tables, Photographs, and Figures in Net Loss and All Reports Before and After the 1989 SEC Ruling.....	76
25. Average Number of Visual Elements in Net Loss and All Reports by Company Before and After the 1989 SEC Ruling	77
26. Average Number of Visual Elements Compared to Average Visual Elements for the Company Before and After the 1989 SEC Ruling.....	78
27. Average Number of Tables in Net Loss and All Reports Before and After the 1989 SEC Ruling	78
28. Average Number of Tables in Net Loss and All Reports by Company Before and After the 1989 SEC Ruling	79
29. Average Number of Tables in Net Loss Years Compared to Average Number for the Individual Company Before and After the 1989 SEC Ruling	79
30. Average Number of Photographs in Net Loss and All Reports Before and After the 1989 SEC Ruling	80
31. Average Number of Photographs in Net Loss and All Reports by Company Before and After the 1989 SEC Ruling.....	81
32. Average Number of Photographs in Net Loss Years Compared to Average Number for the Individual Company Before and After the 1989 SEC Ruling	81
33. Average Number of Figures in Net Loss and All Reports Before and After the 1989 SEC Ruling	82

34. Average Number of Figures in Net Loss and All Reports by Company Before and After the 1989 SEC Ruling	83
---	----

Figure	Page
35. Average Number of Figures in Net Loss Years Compared to Average Number for the Individual Company Before and After the 1989 SEC Ruling.....	84
36. Numbers of 100% Bar/Column Graphs, Renderings, Time Lines, Flow Charts, and Organization Charts in Net Loss and All Reports Before and After the 1989 SEC Ruling	84
37. Number of Bar Graphs, Line Graphs, and Pie Graphs in Net Loss and All Reports Before and After the 1989 SEC Ruling	85
38. Number of Deviated Bar/Column Graphs, Pictograms, Maps, and Logos in Net Loss and All Reports Before and After the 1989 SEC Ruling	86
39. Number of Grouped Bar/Column Graphs, Divided Bar/Column Graphs, Drawings, Surface Graphs in Net Loss and All Reports Before and After the 1989 SEC Ruling	86
40. Number of Column Graphs in Net Loss and All Reports Before and After the 1989 SEC Ruling	87
41. Average Number of Tables, Photographs, and Figures in Net Loss and All Reports Before and After the 1989 SEC Ruling	88
42. Average Number Tables, Photographs, and Figures in Financial Highlights Section for Net Loss and All Reports Before and After the 1989 SEC Ruling	89
43. Average Number of Tables, Photographs, and Figures in Letters to Stockholders in Net Loss and All Reports Before and After the 1989 SEC Ruling	90
44. Average Number of Tables, Photographs, and Figures in the Narrative or Scope of Operations in Net Loss and All Reports Before and After the 1989 SEC Ruling	91
45. Number of Tables, Photographs, and Figures in the MD&A Section for Net Loss and All Reports Before and After the 1989 SEC Ruling	91

CHAPTER 1

INTRODUCTION

Corporate annual reports have a number of functions, the primary one being to inform readers of the financial condition of the company at the end of the fiscal year. These readers typically include stockholders, investors, the general public, and often, the employees of the company--a diverse group of readers. To produce an annual report that is attractive and informative, many companies spend much time, energy, and resources. In 1990, *The Complete Annual Report and Corporate Image Planning Book 5* reported that 48 percent of companies surveyed spent \$100,000.00 or more to produce their 1989 annual reports, with half spending six to nine months in the process. Obviously, companies make a large investment to create reports that stockholders and others will actually read, but according to Jereski (1987) and Paulson (1988), the general reputation of annual reports is that they are difficult to understand because of dense financial prose. Further, Paulson (1988) suspects that the very elements, the visual ones, meant to attract attention, clarify, and make the report look better are often there to cloak bad news.

Purpose of the Research

With the amount of time and monetary resources used to produce annual reports and their importance to their audiences in making investment decisions, one might expect to find extensive guidance on the best methods for companies to use in preparing every aspect

of those reports; indeed, from the financial accounting aspect, much scholarship is available. And the Securities and Exchange Commission (SEC) publishes and updates regulations and guidelines on what information must appear in annual reports, their most recent guideline changes coming in 1989. However, neither financial accounting sources nor the SEC offers any specific information on how to use graphic communication. Of the sources that do offer guidance on preparing annual reports, including graphic communication, none offer any analysis of how companies use visual elements¹ differently in bad financial years as opposed to good ones. In other words, if companies are using their graphic communication differently when reporting bad news, no one has documented any findings. Readers *suspect* that black and white photographs indicate a bad year (Tuscon, 1994) and that a *lack* of graphics indicates a bad year (Lewis, 1972), but no one has researched these factors to prove or disprove those assumptions.

Likewise, one might expect to find detailed information on how to read annual reports and what to look for that would indicate a poor financial year. Again, overviews and general guides are available but nothing specifically related to net losses or to graphic communication and net losses. Stockholders, investment brokers, and anyone else needing to get a complete understanding of a company from its annual report would benefit from knowing what to look for and how to interpret what they find in both the text and the graphic communication; additionally, annual report preparers would benefit from knowing how text and graphic communication differ in net loss years from profit years, especially if the differences shed a more favorable light on the company having to report bad news while at the same time presenting a clear picture and accurate picture.

Related to the SEC's new guidelines, I expected to find some analysis of changes, both textual and visual, in annual reports that had occurred in response to them, but no one has yet researched that area. Most resources ignore graphic communication and its bearing

¹ As used throughout, the terms visual elements and graphic communication are synonymous.

on the effectiveness of annual reports, and in particular, resources ignore how net losses are represented.

Scope of the Project

Thus, the first research question evolved: is graphic communication used differently in corporate annual reports when companies must convey the news that they have suffered a net loss as opposed to those years when they can report that they have made a profit. Answering this question involved examining nine elements of the graphic communication in annual reports and examining how these elements differed in years of net losses:

- (1) numbers used overall and by grouping: tables, photographs, and figures,
- (2) types of figures used,
- (3) sizes of the different types of graphic communication,
- (4) information conveyed,
- (5) placement in the report,
- (6) colors used, and their purpose, if applicable,
- (7) layout and integration of graphics and text,
- (8) integrity of the data displayed, and
- (9) serif or sans serif typeface.

The analysis included the following types of figures because they are the ones that appear in the 100 annual reports examined:

- | | |
|-------------------------------|-------------------------------|
| (1) line graphs | (2) bar graphs |
| (3) column graphs | (4) pie graphs |
| (5) scatter graphs | (6) surface graphs |
| (7) divided bar/column graphs | (8) 100% bar column graphs |
| (9) grouped bar/column graphs | (10) paired bar/column graphs |

- | | |
|---------------------------------|-------------------|
| (11) deviated bar/column graphs | (12) pictograms |
| (13) histograms | (14) time lines |
| (15) line drawings | (16) renderings |
| (17) organization charts | (19) flow charts. |

A second research question also evolved: how does the 1989 mandate from the SEC influence the use of graphic communication in net loss year annual reports. Answering this question meant comparing the data collected from reports prior to the SEC's new guidelines in 1989 to that collected after 1989 to see if the new guidelines influenced how visual elements were used in annual reports.

These questions led to the two primary hypotheses for this study:

- (1) Net losses did not cause decreases in graphic communication in annual reports.
- (2) The 1989 SEC mandate did not cause increases in the graphic communication in net loss year annual reports from 1990 to the present.

Because the Fortune ratings are widely recognized, both by the corporate world and investors, and understood by both to represent the financial status of listed companies, they served as an information source for establishing the criteria used in selecting the companies. The companies chosen, ten from the top 100, are Alcoa, Du Pont, Exxon, General Electric (GE), General Motors (GM), International Business Machines (IBM), International Paper, Eastman Kodak, Philip Morris, and Tenneco. Selecting the 1989 SEC ruling as the mid-point led to the ten-year period of 1985-1994 for the study. A detailed explanation of how the companies and time period were selected appears later in Chapter 3: Materials and Methods.

Limitations of the Project

This research excludes several topics because they have no effect on findings related to different uses of visual elements, regardless of the status of the company's financial position. These exclusions are

- (1) any attempt to reconcile the various views on effective graphic design because no one accepted set of guidelines exists. Instead, analyses of design elements were limited to the few specific elements examined in this study.
- (2) analysis of preparing of financial data for annual reports (i.e., the financial statements) because these elements do not effect the graphic communication.
- (3) analysis of the textual portions of the report other than the introduction of or reference to the visual elements because of the focus on graphic communication.
- (4) analysis of cover designs other than the presence or absence of a photograph and the colors in any cover photographs found.
- (5) use of boxing, shading, or other methods of distinguishing the various financial reporting forms such as the balance sheet and income statement because these forms are not part of the study.
- (6) complex types of graphic communication, such as frequency polygons, trilinear graphs, and semilogarithmic graphs, because these are too complicated for general audiences and because these do not appear in annual reports.
- (7) content analysis (analyzing how many times a topic appears in a particular document) of the subjects of tables, photographs, and figures because the focus is on differences rather than similarities.

- (8) analysis of using optical visual center versus geometric visual center both of the page and of the visual elements because the focus of the study is on using graphic communication and includes only a limited analysis of any graphic design elements related to the integrity of the visual elements.
- (9) analysis of intentions of annual report designers because identifying and subsequently interviewing these designers might be next to impossible and because their memories of what their intentions were in reports as far back as 1985 may be quite limited.
- (10) analysis of visual rhetorical strategies used in the various annual reports.
- (11) readers' analyses of graphic communication in the reports examined because their analyses would not affect what companies had already published.
- (12) any analysis of why graphic communication in net loss reports might change because the purpose of this study is to identify the specific changes.

The study does include

- (1) the number, types, and sizes of visual elements;
- (2) information conveyed;
- (3) colors used;
- (4) layout, integration, and integrity of the visual elements; and
- (5) the type of typography used in both the text and visuals.

Definitions

For purposes of clarity, a list of definitions relevant to this dissertation appears in Appendix A, beginning on p. 161.

Organization of Report

This dissertation contains five chapters following this introduction. The second chapter presents a review of literature including information on the rationales for using graphic communication, processing of visual information, preparing graphic communication for written documents, preparing annual reports, and preparing visual elements for annual reports. The third chapter focuses on materials and methods including an explanation of how the companies were chosen, how the profitability (or lack of) of the company was determined, and how primary data were collected and recorded for later analysis, and how the statistical analyses were conducted. A fourth chapter presents the findings on the numbers, types, sizes, and colors of graphics used; layout and integration of graphics and text including placement on the page; information conveyed by the graphics; the integrity of the data displayed; placement of visual elements in the various annual report sections; and effects of the 1989 SEC ruling. A discussion and analysis of the findings follow in chapter five and conclusions in chapter six. Following the text of the report are works cited, a supplemental bibliography, and appendices containing tables that display the data collected from all ten companies.

CHAPTER 2

REVIEW OF LITERATURE

The literature yields no information on how visual elements in annual reports differ in net loss years from profitable years. It does, however, provide information related to using graphic communication in written documents and preparing annual reports. The literature provides rationales for using visual elements in written documents, key information about the processing of visual information, and basic information in preparing visuals and defining the different types and their uses. Also, the literature contains information on three aspects of annual reports:

- (1) preparing annual reports, beginning with the earliest sources and moving forward,
- (2) 1989 SEC mandates related to annual reports, and
- (3) preparing graphic communication for annual reports.

While most annual report sources contain at least some mention of using graphic communication, only a few give specific information on which visual elements effectively convey information to annual report readers. And no sources discuss how the visual elements in annual reports might differ depending on the company's financial status during the reported year. Two general expectations are that a lack of graphic communication might indicate bad news (Lewis, 1972) and that "flashy graphics" probably conceal bad news (Paulson, 1988). In other words, no one had considered how visual elements improve readers' understanding of annual reports or how they help convey a picture of financial hardiness versus a picture of financial weakness.

This literature review will demonstrate that a research hole exists because no information currently exists that explains how visual elements in annual reports during net loss years differ from reports in profitable years. Presented in the two broad categories of graphic communication and annual reports, the sources will be discussed primarily in chronological order to end each section with the most current information available. This format will help to focus on the literature being produced during the time the companies were producing the reviewed annual reports. The section on graphic communication covers four major areas: rationales for using graphic communication, processing of visual information, preparing graphic communication for written documents, and description and general guidelines for preparing specific types of visual elements. The second section discusses literature relating to preparing annual reports and preparing visual elements for annual reports.

Rationales for Using Graphic Communication

The overriding rationale for using graphic communication in written documents is that readers comprehend material more effectively and efficiently when visuals are included. Readers comprehend visuals and text used in conjunction with each other better than using either format alone (Vernon, 1953; Rasco, 1975) unless, of course, the visuals distort the true picture. Moreover, readers recall abstract information more effectively if it contains visual elements (Royer, 1976), and readers who receive graphic communication after reading relevant information have greater recall because the visuals serve as a review process (Brody and Legenza, 1980). Readers with little background knowledge in a particular subject benefit greatly from having visuals because those readers understand more (Andrews, 1980b). Along this same line, visuals are equally important as text for conveying information to readers (Duchastel, 1982).

Researchers indicate graphic communication plays many roles in communicating information. Graphic communication helps readers understand material more easily (Lefferts, 1981; Tufte, 1983) and has three functions in helping readers through material: attentional, explicative, and retentional (Duchastel, 1982). That visual elements help readers is reinforced by the finding that tables and graphs have a positive effect on readers' comprehension (Peterson, 1983). Six basic functions of graphic communication include emphasis, speed, motivation, understanding, remembering, and summarizing (Darin, 1983). Darin (1983) emphasizes remembering (or recall) as being most important because concepts that are represented visually may be remembered longer. Furthermore, even though a visual element may not contain any new information, it can "make more *explicit* what was *implicit* in the text" (Darin, 1983, p. 26).

White (1984) asserts that visual elements have many, many roles in helping the reader understand; they can

- (1) show and tell facts effectively,
- (2) save the reader's time,
- (3) direct the reader's attention to important aspects,
- (4) give the reader a context for the important facts,
- (5) display statistical relationships more clearly,
- (6) show complex relationships,
- (7) illustrate nonvisual concepts,
- (8) embellish and gain attention,
- (9) provide vast amounts of statistics in a relatively small space,
- (10) break up the monotony of the solid page, and
- (11) gain credibility and status (pp. 7-8).

Condensing the roles of graphic communication to a more manageable size yields five roles: affective, attentional, didactic, supportive, and retentional (Hartley, 1985b).

Several other writers point out more singular rationales for using graphic communication. Visual elements help readers make comparisons more easily (Clark, 1987) and help readers make better-informed and rapid decisions (Dumont, 1987). In addition, liberal use of graphic communication throughout a document facilitates readers' abilities to scan material quickly (Denmarch and Esteban, 1988) and helps readers pay attention, move through a document more easily, and understand more quickly. In addition, readers look first at any visual elements that are on a page (Sanchez and Levy, 1991). Sanchez and Levy (1991) note that the most strategic placement for a graphic communication is at the bottom right of the page although they do not explain why.

Sources in cognitive science indicate that graphic representation is sometimes better at conveying some types of information than is prose (Williams, 1992). Visual elements are used most effectively

- (1) to describe;
- (2) to represent abstract relationships;
- (3) to clarify spatial relationships; and
- (4) to help readers solve problems, remember information, and perform procedures (Williams, 1992).

Understanding how readers use graphic information can help writers better decide when and how to use it (Williams, 1992). Moreover, graphic communication helps readers perform procedures and visualize processes and mechanisms and also is particularly effective for readers who have limited reading skills or who speak a language other than English as their primary language (Horton, 1992).

These scholars agree that graphic communication provides a much needed catalyst in reader comprehension and recall of written information, and further that visual elements function in many capacities to create that catalyst. From attracting the reader's attention to providing vast amounts of information in a relatively small space, to helping readers make

comparisons and decisions, visuals are an essential component of communication. This section of literature supports the concept of using visual elements whenever possible, including annual reports, to help readers understand and remember more easily what they read, but it does not offer any insight on how rationale might differ when companies have to report bad news. How readers process visual information is the next area of review.

Processing of Visual Information

One important aspect of graphic communication stressed by authors in most every field is that writers must design visual elements to suit the reader (Wright, 1982; Trzyna and Batschelet, 1987; Herring, 1990). According to findings in the fields of cognitive psychology and document design, this idea has a strong foundation. Research in processing visual information leads to four categories of information:

- (1) reading graphic communication as a learned skill,
- (2) eye movement in reading graphics,
- (3) processing of visuals/graphics, and
- (4) readability of graphic communication.

Again, the search focus is to find research related to how processing visual elements might differ when the information contains bad news.

Reading Graphic Communication as a Learned Skill. Many researchers support the idea that reading graphic communication is a learned skill. Effective graphic communication depends upon writers using images, symbols, and conventions that all readers know and accept (Tubbs, 1969; Moorhouse, 1974). Spatial perception is also a learned skill, with readers matching incoming sensations with visual memory, so knowledgeable readers see more than do less knowledgeable ones (McKim, 1972). Visual inputs and other inputs become associated and leave traces in the brain; thus, visual perception improves as readers gain more practice in reading visual elements (MacIntyre,

1974). Past perceptual experiences and current motivational and cognitive states play important roles in perception (Stanley, 1974); moreover, readers with poor education and shallow backgrounds have poor, shallow perceptions because their memory storage is inadequate and because they have no background in perceiving relationships and making comparisons (Hammet, 1975). Readers are even better able to make distinctions among shades of color after training and practice (Albers, 1975), and the more a reader practices, the more his skill increases (Haber and Hershenson, 1980).

The study of the drawing language of a group of engineers demonstrates that reading graphic communication is a learned skill (Davey, 1981). Using a uniform drawing language (everyone's symbols and codes had the same meaning) helped a group of engineers reduce confusion and clutter on drawings while also eliminating guess work and increasing similar interpretations by different readers (Davey, 1981). This finding concurs with the concept that people easily read graphic communication with which they are familiar (Fry, 1981), and readers use their past experiences to fill-in incomplete patterns within visual elements (Henderson 1981). However, complex diagrams and charts are not effective for readers with low abilities because these readers do not have the necessary training or practice to read them (Winn and Holliday, 1982).

Another factor affecting how one reads graphic communication is culture. Culture controls matching external stimuli with internal concepts, and internal concepts or patterns develop as results of cultural experiences (Fiske 1982). Wright (1982) best summarizes these ideas by stating that writers, when designing graphic communication, must consider their readers' knowledge and intellectual abilities.


Eye Movement in Reading Visual Elements. In addition to knowing that reading visuals is a learned skill, communicators also need to know something about how the eyes move and function when examining graphic communication. Communicators can then better understand how readers access the information within them. The literature

shows that researchers do not agree on how readers' eyes move. Early studies indicate that the eyes normally enter the page at the upper left-hand corner, proceed across and down the page to the lower left corner, and then off of the page at the lower right corner (Dennis and Jenkins, 1974). A later source indicates that the eyes move across the page from the upper left-hand corner diagonally to the lower right-hand corner (Laner, 1978). A contrasting finding is that after the initial fixation, the eyes move left and upward and make exploratory coverage of space in a clockwise manner (Turnbull and Baird, 1980), and while readers with a statistical background look at the field as a whole to determine the values before they scan horizontally, vertically, and maybe diagonally, other readers scan the field only to find obvious exceptions to uniformity (Clark, 1987). Although researchers lack consensus, they do agree that eyes generally move from the top left to the bottom right of a text page.

Processing of Visuals/Graphics. An area of research that may prove more helpful is how the brain processes visual/graphic information. Visual input goes to sensory registration before it goes to central processing (Das, Kirby, and Jarman, 1975). (Perhaps it is here that past experience, culture, and education play an important role.) Readers process visuals combined with factual information slightly better if the visuals are on the left half of the page with text on the right (Metallinos, 1979). However, readers do not always process words in the text in the left hemisphere of the brain just as they do not always process visual material in the right hemisphere (Minor, 1980). Usually the left brain is responsible for language while the right brain is responsible for perceptual recognition, nonverbal thinking, patterns, and spatial and part-whole relationships, and readers usually process nonverbal information simultaneously while processing verbal information successively, but these processings can vary (Minor, 1980). Graphic communication may provide a better and faster way of entering information into the mind, but verbal materials may also generate images and be processed as nonverbal information (Minor, 1980).

Research indicates that each side of the brain works with the other in processing information and does not work totally independent of the other as once believed (Hand, 1982). Although the right side of the brain does not process all of the nonverbal input, it does specialize in this area. Thus, the most effective layout places text on the left and pictures on the right, sending verbal and nonverbal inputs to the sides of the brain that process them best (Hand, 1982). Conversely, later research finds that placing visual elements on the left encourages processing nonverbal information in the right hemisphere, allowing readers to use the right visual field to scan text (Rude, 1988). This arrangement allows readers to get a quick concept from the graphic before reading details in text.

Other research focuses not as much on right/left brain as it does successive operations in reading visual elements (Bertin, 1983). Readers complete three successive operations in reading visual elements: external identification, determining the components; internal identification, determining which variables express the components; and perception of pertinent correspondences, telling what questions the visual elements answer (Bertin, 1983). In addition, reading visual elements comes at three levels: elementary (reading plot points), intermediate (making comparisons), and overall (converting the information into one concept) (Bertin, 1983). The difficulty of the perceptual task(s) involved is also a relevant factor in processing visuals (Cochran, Albrecht, and Green, 1989). Elementary perceptual tasks from most to least accurate are

- | | | |
|---|---|------------------|
| (1) position along a common scale, | (most accurate) | |
| (2) position on identical but aligned scales, |  | |
| (3) length, direction, and angle, | | |
| (4) area, | | |
| (5) volume and curvature, and | | |
| (6) shading and color saturation | | (least accurate) |

(Cochran, Albrecht, and Green, 1989). These researchers' findings reiterate the previous ones who suggest that reading graphic communication is a learned skill that improves with practice. The differences in the right/left brain research may be related to what visual elements the test subjects had seen and read prior to the researchers' tests.

Readability of Graphic Communication. Although research in readability (the ease with which readers access and use information) of graphic communication is not plentiful, researchers have identified several specific graphical elements that affect readers' abilities to access information. For example, pictographs are best for static comparisons, bar graphs for complex comparisons, line graphs for dynamic comparisons, and statistical tables and round numbers for specific amounts (Washburn 1927). Lettering directly on the bars or at the ends of bars distorted the impression of relative values (Lutz 1949). Readers perform comparisons more easily with line graphs than with bars or columns (Schultz, 1961a), and for making comparisons, one graph with multiple lines is more efficient than several different graphs (Schultz, 1961b). Although color can improve point-reading slightly, the improvement may not justify the cost (Schultz, 1961b). In-line flow charts are easier to read because of vertical arrangement (top-to-bottom reading) and serialization (Small 1973). Grouping information within visuals to bring out relationships helps readers find the significance more easily (Buehler, 1977).

Research on effective tables concludes that putting principal comparisons in columns rather than rows helps improve reader comprehension (Woods, 1967). Readers make conversions requiring tabular information faster and with fewer errors when the data is arranged vertically (Wright, 1970). Tables effectively convey quantitative information in rows and columns, making them especially effective for displaying quantitative, descriptive, and comparative information (Wright, 1980). Readers use tables most efficiently and correctly to make conversions when the data are arranged in vertical columns, but readers largely ignore color and typographical cues unless they have had quite

a bit of practice with a certain table (Wright, 1980). Readers also make conversions more efficiently when reading data from left to right; for example, once readers find the item in question within the table, they can make the conversion to the new data more quickly if the new information appears to the right of the old, following the normal left to right reading pattern (Wright, 1980). Furthermore, even though readers are most efficient at reading horizontally arranged data, they are most efficient at scanning *vertically* arranged data (Wright, 1980).

Other research on tables finds that direct labeling gives readers the quickest readings without loss of accuracy because it apparently involves fewer steps and depends less on short term memory (Milroy and Poulton, 1979). Reading difficulty, however, increases as the number of items a reader has to compare increases (Roller 1980), and response times for color visuals are not faster than for black and white (Tullis, 1981). Also, color does not increase understanding although it does add to the aesthetic quality of a document (Waller, Lefrere, and MacDonald-Ross, 1982). Performances in reading flowcharts are best when the directional orientation of the flowchart is consistent with reading patterns of left-to-right and top-to-bottom (Krohn, 1983).

Importance of Simplicity in Graphic Communication. Another factor affecting the processing of information is simplicity. Increasing the density of graphic communication increases the amount of time needed to read and the number of errors made by readers (Smith and Thomas, 1964).) Furthermore, highly abstract designs are not simple and thus are difficult to process (Arnheim, 1969). Because readers can scan at most 5.6 bits of total information per second, reducing visual clutter and creating simplicity should increase readers' access to the information, thus increasing the readability of the graphic (Teicher and Krebs, 1974).

The need for simplicity in graphic communication is reiterated often (Book, 1980; Wainer, 1980) with the emphasis that overly elaborate visuals are more difficult to read

(Wainer, 1980). Likewise, simplicity increases the visibility of the necessary elements (Pitre and Smeltzer, 1982) and helps keep visuals clear of distractions (Finney, 1986). Further, simplicity in graphic communication helps achieve perceptual simplicity, thus reducing visual clutter and increasing effective and efficient visual processing (Barton and Barton, 1987). Conversely, Tufte (1983) suggests that “graphics should be reserved for the richer, more complex, more difficult statistical material” (p. 30). He also emphasizes that designers of statistical data graphics should not underestimate the intelligence of their readers, but goes on to add that those graphics should convey their messages efficiently with as little “chartjunk” as possible.

Preparing Graphic Communication for Written Documents

This section includes a review of most of the texts, books and articles from art and architectural design, graphic art and graphic design, statistics, and technical communication (as used here includes scientific and business communication) for information on preparing graphic communication. The search includes information in two areas:

(1) layout, integration, design, and color, and

(2) the following types of visual elements:

bar, column, line, scatter, surface, and pie graphs;

charts;

diagrams and drawings;

histograms;

maps;

photographs;

pictograms; and

tables.

These are visual elements with which most communicators and readers are familiar and readily recognize, and they also represent the types of figures used in the annual reports in this study. The search excludes the more complex types of graphic communication (i.e., frequency polygons, trilinear graphs, and semilogarithmic graphs) because they usually have a more specialized, usually expert, audience--not the typical stockholder or other annual report reader. The search includes some information on computer generated visuals as they are becoming more popular for preparing annual reports.

Layout, Integration, Design, and Color. Most technical communication textbooks focus on giving basic information on the layout, integration and placement, and design of graphic communication with the bulk of this information drawing from tradition rather than research. Some texts have more information than others, and some are more specific than others. Sources on layout focus on successful integration of visuals and text with three primary criteria being

- (1) it works,
- (2) it organizes, and
- (3) it attracts viewers (Seibert and Ballard, 1992).

Textbooks like those of Pearce, Figgins, and Golen (1984) and Lannon (1992) emphasize that integrating visuals with text helps readers see the relationship between graphic and text.¹ Design elements focus on what overall principles are effective and which ones are not. Tufte (1988), popular for his use of the term "chartjunk," stresses that for graphic communication to be most effective, it should be free of "chartjunk" such as overbusy grid

¹For similar treatments of graphic communication, see American Society of Mechanical Engineers (1979); Andrews (1980); Beck and Wallisch (1981); Benson (1985); Bethke (1979); Bodmer (1983); Duff (1982); Hanna (1982); Hicks (1959,1961); Jacobi (1976); Lesikar (1981, 1982, 1984); MacDonald-Ross (1978); MacGregor (1979,1982); Meyers (1970); Newman (1987); Olson and Huckin (1983); Pauley and Riordan (1987); Pratt (1979); Riggelman (1936); Schoff and Robinson (1984); Szoka (1982); Trzyna and Batschelet (1987,1988); and Zimmerman and Clark (1987).

lines, garish colors, vibrating optical art, cartoons, and one-dimensional data masquerading as three-dimensional figures. Opinion is divided on the effectiveness of color; some see color as attractive but also distracting and expensive (Myers, 1950) while others find that color not only adds interest and meaning, but is preferred by readers (Filley, 1982). More detailed information on layout, integration, and design of graphic communication follows in its respective section.

Details on Layout. Some writers offer more specific suggestions on layout than do Seibert and Ballard (1992). As early as 1927 Surry identifies twelve variables of layout that can be manipulated and controlled:

- | | |
|-------------------------------|---------------------------|
| (1) size of space | (2) shape of space |
| (3) number of units in layout | (4) arrangement of units |
| (5) size of type | (6) family of type |
| (7) arrangement of type | (8) shape of illustration |
| (9) technique of illustration | (10) border |
| (11) firm or tradename, and | (12) trademark. |

For layout to be most effective, readers should not have to turn the document to read visuals (Myers, 1950 and Horton, 1992a), and sequential items, such as flow and organizational charts and time lines, should move from left to right or from top to bottom (Nelms, 1957). Additionally, asymmetrical balance in layouts creates a more pleasing layout than formal, symmetrical balance (Arnold, 1972). Three classic types of layout include the "S" or reverse "S," the pyramidal, and the "L" or reverse "L" (Arnold, 1972). In all layouts, smaller top margins encourage readers to proceed quickly into the text while larger bottom margins give readers a sense of rest before going on to the next page, and layouts should not have readers jumping over pieces of art in order to finish reading a sentence or section of information (Laner, 1978). In layouts with visual elements

appearing on the broadside of a page, titles should appear on the left margin, next to the center (Schmid and Schmid, 1979). For emphasis in layout, the upper half of the page has greater impact than the lower half (Niecamp, 1981).

For instructions, visuals should appear on the same page or facing page of the text that introduces them (Saunders, 1982). Plenty of white space is essential if text and graphic communication appear on the same page (Bodmer, 1983), and paired-page layouts of text and visuals are very effective when text is on the left and visuals on the right (Greenly, 1985). Visual elements that appear perpendicular to the text create problems for readers and are, therefore, less effective (Pinelli, Cordle, and McCullough, 1986).

As for placement (an important aspect of layout) within the document, most sources call for graphic communication to appear in the text as close as possible to its introduction and reference. Writers create "communication disasters" by placing visuals ten pages away from their textual discussion (Bissell, 1977); furthermore, graphic communication in an appendix helps no one (Lesikar, 1981). Writers should refer to visuals at the appropriate time for learning (Marra, 1981; Brody, 1982; Grice and Rubens, 1982), and visuals should be redundant through the text rather than have the reader going back and forth (Rubens, 1986). Finally, any visual that is useful to the reader should appear in the text and not in an appendix because the reader may never see it there (Barnett, 1987).

Xerox offers layout and design information for graphic communication in its 1988 *XEROX Publishing Standards*. In addition to discussing sample layout patterns for visuals, it explains that people read visuals the same way they read text, from left to right and top to bottom. Thus, designers should design visuals to match the reader's normal reading pattern. Xerox also offers some useful information on when and how to use rules or frames around visual elements. It offers specific information on how to place a visual in the text, taking into consideration text size, margins, and size of the visual element.

Finally, Xerox warns against centering visual elements within a column or text because centering draws unnecessary attention to the element or can cause it to get lost ; moreover, centering breaks up the rhythm of returning to the text column edge. The consensus is that effective graphic communication appears in the text on the same or facing page as its introduction, and using introductions is one means of integrating text and visuals.

Details on Integration. The first and foremost guideline for integrating visuals and text is that the author should number, label, title, introduce, and refer the reader to each visual element in the text (Strong and Edison, 1980; Bodmer, 1983). The best way to make sure a reader looks at a graphic is to refer to it (Brody, 1982). If the purpose of the visual is to introduce, readers need to look at it before reading about it, and if the purpose of the visual is to review, readers need to look at it after reading about it (Brody, 1982). Writers should make specific reference to visuals so readers know what to look for and when to look (Brown, 1978). Simcox (1984), in presenting some basic guidelines for computer-generated graphic communication for business documents, indicates that focus statements help both the designer and the reader identify what elements and information are important.

The most important of all factors is the proximity of the graphic to its reference (Hartley, 1985b). To summarize, writers should tell readers when to look, where to look, what to look for, what the highlights are and then keep the visuals close to the relevant discussion (Treece, 1991; Lannon, 1994).

Details on Design. Authors of books focusing on charts or technical illustration usually provide the most details on how to design graphic communication effectively, but technical communicators also offer useful information. This information usually falls into one of six categories:

- (1) lettering;

- (2) grids, ticks, scales and scale breaks;
- (3) titles or captions;
- (4) problems or errors to avoid;
- (5) editing; and
- (6) specific design details.

For constructing graphs, all lettering and numbers should read from left to right with all labels as close as possible to the part identified and should be in one appropriate size of upper and lower case Gothic print (Myers, 1950). Oversized lettering overpowers illustrations and adjacent text (Hicks, 1961). Gould (1973) cites horizontal, block, all capital, sans serif lettering with no italics as optimum for labeling visuals, but more recently the American Society of Mechanical Engineers (1979) and Enrick (1980) recommend that upper and lower case is preferable to all capitals and state that lettering should not be overpowering or too small.² Type in the text should differ from that in visuals (e.g., text in serif and visuals in sans serif), and boldface is effective for captions and headings (Rubens, 1986). In addition, serif typography (e.g., Times Roman) is preferable to sans serif because the serifs help link the letters into letter groups and direct the eyes horizontally across the page rather moving vertically from top to bottom as eyes might do without the serifs (Brockman, 1990).

Improper use of grids, ticks, scales, and scale breaks are some of the most frequent causes of misleading or poor graphic communication. Common problems include inappropriate scales, misleading graph breaks, and three-dimensional scales (Francis, 1962 and Zelazny, 1975). Related problems are multiple scales on the dependent axis and

² Citing literature from the Society of Mechanical Engineers raised the question of what style manuals are available especially for accounting or finance. Howell lists five resources for business of which Lesikar (1981) and Lewis and Baker (1978) are included. Both have useful information on using graphic communication, but neither includes any information on how graphic communication in annual reports might vary in net loss years. Furthermore, unless a researcher knows exactly which of the many style

lack of a zero baseline (Hartley and Burnhill, 1977). In addition the American Society of Mechanical Engineers (1979) points out that grids are more effective than tick marks. Other errors include faulty scales and incorrectly broken scales (Johnson, Rice, & Roemmich 1980), poor and inconsistent use of scales (Wainer, 1980), and faulty grids (Schutte and Steinberg, 1983). Full scale breaks should replace partial ones for a more “forceful display” and a more accurate representation of the data (Cleveland, 1984a).

Many sources offer suggestions on preparing titles (or captions) with the most common suggestion being that titles should be detailed and clear. Headings should appear in the same place for each visual element (Francis, 1962), and visual elements should have comprehensive titles (Pratt, 1979). The title should describe the contents of the visual, answer the questions of who, what, when, where, and why (Lesikar, 1981), be unique and printed in upper and lower case letters (Rubens, 1992).

Problem areas other than those noted about scales and grids include inconsistent base lines (Francis, 1962), optical illusions (Tolansky, 1967), improper emphasis, misleading titles, three-dimensional figures, symbols that increase in size rather than number (Francis, 1962 and Zelazny, 1975), surface slants for crosshatching in two or more directions (Spear, 1969), words not on the horizontal (Spear, 1969), functionless use of color (Spear, 1969), and undisciplined use of a variety type sizes (Hartley and Burnhill, 1977). Problems also occur when symbols change in size, not number (Schutte and Steinberg, 1983) and when garish patterns distract the reader (Simcox, 1984). Similar information on specific design guidelines is available in many sources (e.g., Murgio, 1969; Paller et al., 1981; Lefferts, 1981).

Editing guidelines vary from the detailed information given (Hall) in 1943 to the checklists more popular today. Hall offers specific guidelines for constructing

manuals a company is using, basing conclusions on a style manual would be impossible. Also, most companies the size of a Fortune 100 company have their own style manuals.

effective tables. More popular today are the lists of questions to ask about the quality of graphic communication (Horton, 1991) and checklists of design elements (Murphy and Rhiner, 1991; Samson, 1992).

More specific details about certain elements within the design of graphic communication come from Modley (1937), who gives detailed information on proper design and use of symbols, and Dickinson (1973), who indicates that geometric symbols are preferable to pictorial symbols on maps. Rulings drawn on a surface to add shading, shadowing, or surface texture make a graphic "jump out" at readers (Morris, 1975), and contour, shade, and shadow increase the reality of and emphasis within visual elements (Hanks and Belliston, 1977 and 1980). Various methods for shading and texturing are available but must be properly prepared (Laseau, 1980 and 1987).

Details on Color. Color is another method of adding reality and emphasis within graphic communication. Writers should use color sparingly and not just to decorate (White, 1982) because not all colors are equally readable (Murch, 1985). Analyzing effective use of color involves three categories: physiological, perceptual, and cognitive, and being able to analyze from these three perspectives creates more effective use of color (Murch, 1985). Effective uses for color in graphic communication include directing attention, providing clarity and emphasis, delimiting shapes and areas, assisting in identification, and clarifying complex ideas (Winn, 1991). Other effective uses include aiding decision making, increasing learning, revealing organization and patterns, adding realism, speeding searches, selling, and satisfying viewers' preferences for color (Horton, 1991). On the other hand, color can also diffuse attention, decrease performance, cause confusion, and increase difficulty and reader effort. The effectiveness of color as an information cue depends on where it is used, what elements are cued, how cues are differentiated, and what color characteristics are used (Keyes, 1993). Obviously, many factors influence communicators'

decisions regarding layout, integration, design, and color of graphic communication as well as decisions focusing on which graphic form to use.

Types of Graphic Communication. Numerous writers have discussed the different types of graphic communication and how they are best used, and most of them offer very similar information. Much of the information available in the earlier literature (Brinton, 1914; Arkin and Colton, 1940; Lutz, 1949) on the various types of graphic communication is very similar to the more current literature (Schmid and Schmid, 1979; Lesikar, 1981; *Using Ratios and Graphics in Financial Accounting*, 1993). All agree that graphic communication is useful for clarifying, summarizing, attracting attention, and helping memory. The various types of simple graphic communication include tables, photographs, graphs, charts, pictograms, drawings, and maps. Most of these authors offer general descriptions of how the graphic communication functions, echoing the rationales discussed earlier, and what type of information they convey most effectively (e.g. MacGregor, 1979 and Lefferts, 1981). Of the types of graphic communication most often found in annual reports, the following descriptions represent summary of the many sources reviewed.

Tables effectively convey quantitative information in rows and columns, making them especially effective for displaying quantitative, descriptive, and comparative information (Lesikar, 1981). Readers use tables most efficiently and correctly to make conversions when the data is arranged in vertical columns, but readers largely ignore color and typographical cues unless they have had quite a bit of practice with a certain table (Wright, 1970). Tables also provide the opportunity to organize large amounts of information into a relatively small space and are popular with readers because tables are usually easy to read (Tukey, 1977). Two types of tables are the general-purpose and special purpose tables; general-purpose tables are basically are a “repository of detailed statistical data” with no particular purpose other than to record the collected data (Lesikar,

1981, p. 190). Special-purpose tables assist the writer in illustrating specific points related to the textual discussion (Lesikar, 1981). Although most special-purpose tables appear in the text of documents, and certainly appear in the various sections of the annual reports examined for this study, most general-purpose tables appear in the appendices as supplements to the text and figures (Lesikar, 1981).

Graphs display numerical data in a visual format and are particularly useful for visual comparison of one or more functions in relation to change in another, with time being one of the most commonly used independent variables (Schmid and Schmid, 1979, Lefferts, 1981). Because graphs are effective for making comparisons, they are useful in drawing conclusions; showing trends, movements, cycles, and distribution; depicting past, present, and future; and analyzing current situations (MacGregor, 1979). Graphs show change rather than actual amounts, and several types of graphs are effective for general readers: line graphs, bar and column graphs, pie graphs, and surface graphs (Schmid and Schmid, 1979).

Although most of these types can be used interchangeably with appropriate design and preparation, each has its specialty area in displaying information. Line graphs, showing trends or movements, are especially useful for showing increases and decreases over time such as might be used in displaying data on sales, expenditures, or production rates (Schmid and Schmid, 1979). Bar (horizontal elements) and column (vertical elements) make more dramatic comparisons and can depict both positive and negative numbers (Lefferts, 1981), a factor that might be more important for companies that have been experiencing net losses instead of profits. Bar/column graphs have a number of formats such as subdivided bars, multiple bars, 100% bars, or paired bars (MacGregor, 1979, Lefferts, 1981). Surface graphs are more complex in that they combine elements of both the line and bar graphs and look like a multiple-lined graph in which the spaces between each line are filled with color or shading to show the parts of a whole (Schmid and

Schmid, 1979) such as might be used to show revenues by companies who have more than one product division. The top line would represent total revenues with each band representing revenues by a division of the company.

While graphs display numerical data, charts symbolically portray processes and organizations, showing movements through time or structural organization (Lefferts, 1981). Flow charts visually represent the steps and stages in such processes as manufacturing, decision-making, and reporting processes while organization charts reflect the levels of responsibility and lines of authority within an organization (Schmid and Schmid, 1979; Lefferts, 1981; Lesikar, 1981).

Pictograms and histograms are both variations of bar graphs. A pictogram, designed like a bar graph, uses picture-symbols rather than bars to show comparisons (Schmid and Schmid, 1979). For pictograms, the preferred way to show value changes is by using more or fewer symbols rather than by increasing or decreasing the size of the symbol (MacGregor, 1979; Schmid and Schmid and Schmid, 1979; Lefferts, 1981). Histograms are designed like bar graphs with the primary difference being the comparison of two continuous variables rather than one (Lefferts, 1981). For general readers, pictograms often replace bar graphs because pictograms are more attention getting and appealing to look at (Schmid and Schmid, 1979; MacGregor, 1979). Histograms have a far more limited use, are more complex to design and read, and thus are seldom used in materials prepared for general audiences (Lefferts, 1981).

Maps, on the other hand, are usually very easy to read and very effective in comparing differences in geographic locations or showing spatial distributions (Tufte 1983), such as a company might do in showing its cost of operations by geographical area or showing its subsidiaries and branches, because most readers are familiar with maps. Spots (or point-symbols) and shading are the most often used methods of depicting the data

(Schmid and Schmid, 1979). Like other visual elements, increasing the types of data displayed in the maps increases the complexity and difficulty of reading (Tufte, 1983).

Drawings and photographs are similar in their function of showing what something looks like; the major difference is the level of reality. Of course, photographs give an exact representation of appearance and are effective for showing new products, new facilities, or people at work (Lewis, 1972). However, for going beyond the exact representation, drawings are needed because they allow readers to see sketched concepts (Duff, 1982). They also could show readers layers, internal components, or disassembled parts of objects (Duff, 1982). Concepts of new products or buildings are often introduced through renderings (Herring, 1990).

These, by no means, are the only types of graphic communication available; however, they represent the simpler types of graphic communication that most general audiences can read and comprehend. These also happen to be the types of graphic communication that appear in the annual reports examined in this study.

Annual Reports

My research on annual reports yielded information in four areas: historical use of visual elements in annual reports, readability of annual reports and annual report mandates from the Securities and Exchange Commission (SEC), and references to the SEC mandates. Although in 1989 the SEC issues new mandates on disclosure in annual reports, these mandates contain no requirements for any type of visual elements.

History of Graphic Communication in Annual Reports. Selvage and Lee (1938) report that using charts and diagrams in annual reports is increasing, and they give examples of how these types of graphic communication have been used in previous years' reports. They suggest that readers can benefit from a graphic representation of revenue or sales and further suggest that photographs should be used to tell a story.

Legibility, they find, is very important in designing visual elements. McLaren (1947) explains that graphic communication helps readers visualize the “nature and extent of corporate activities,” breaks up the page, and emphasizes significant developments (p. 268). Additionally, 67 percent of the annual reports surveyed use color, primarily with photographs and charts; moreover, the consensus is that graphic communication stimulates reader interest although overuse of visuals is not good (McLaren, 1947).

According to Dale (1947), “Improvements in layout and headings, photographs and illustrations, graphs, . . . will make the reports more attractive and more readable” (p. 93). He goes on to add that a two-column format or a single column with wide margins, using the top right corner for such items as content summaries or statistics, is recommended, and photographs should relate specifically to the text and show new fixed assets, top officials, new products, new operations, or long-service employees. Furthermore, Dale suggests that graphs serve to increase understanding for unskilled readers while serving as time savers for skilled readers; in addition, graphs help readers understand the general character of the company and changes in series, and draw attention to sequence, coincidence, and possible causal connections. He finds logarithmic charts useful because they indicate rate of change over time rather than absolute differences and show growth factors more clearly; however, the author acknowledges that others believe these charts are too difficult.

One of the most detailed accounts of how companies can use graphic communication in annual reports appears in Lillian Doris’ 1948 *Modern Corporate Reports*. Early in her text, she indicates that graphic presentation of important facts and figures that reflect progress shows results at a glance for annual report readers. She then breaks down the report into its various sections and gives detailed “ideas for charts and graphs” for each section. In the chapter “Livening Up the Annual Report,” she discusses the different types of graphic communication that one might use, gives general guidelines for choosing and designing, and provides cautions about what to avoid to produce useful graphic

communication. Finally, she briefly discusses the importance of explaining visuals, even simple ones, in the text.

The following year (1949), Sanders states “No rules or general principles can tell all companies’ managements what are the best pictures for them, not the best way to use them, nor even that every report must have them” (p. 81). However, he finds that the average number of pictures in annual reports over the previous 10 years (1937-1947) increased from 1.6 to 7 per report while the use of charts increased from 0.28 to 1.2 per report (Sanders, 1949). He does find that pie charts are most often used for showing the distribution of the company’s revenues and line charts most often used for showing trends or variations of more important statistical items.

Electronics magazine’s “Annual Reports Go Modern” (1957) reports that annual reports now include illustrations of three types: product development; photos of products, people and activities; and charts and graphs (with color) of current statistics most effectively used. The executive section of the annual report contains mostly photographs, and the scope of operations section contains numerous maps, while the financial section contains basically no visual elements (Talucci, 1959). Financial highlights should contain a chart depicting distribution of sales or income dollars; maps should show company subsidiaries and divisions, and photographs and drawings should depict company products (Floyd, 1960).

Of the five annual report sections, the three primary sections are, in order, executive or management, narrative or scope of operations/history, and financial, and graphs and charts appear in 97.9 percent of the annual reports of the companies surveyed (Talucci, 1959). Further, the financial section now had graphs, charts, and pictograms (Talucci, 1959). The need for more simplicity and increased interpretation (Barlow, 1965) led to the appearance of even more visuals with charts, graphs, and diagrams being the most popular (Koestler, 1969).

Lewis (1971) explains that dramatic color photography, generous use of white space, and other visual elements common in the annual reports of his study are directly related to the contributions of IBM's design leader, Paul Rand, whose designs and ideas have been largely borrowed. He reports that GE changed its Chairman's letter by shortening it to one page and by adding a picture of the Chairman, while also integrating photos, captions, headlines, and text to create annual report themes. These changes increased the number of people reading GE's annual reports. Lewis further asserts that visual elements are useful for pacing the reading of text as well as for emphasizing key elements, but recommends that simplicity is best. He cautions against using graphic communication in good years and not in bad years because readers may believe that the company does not expect the financial picture to improve. He stresses that the one most important ingredient in an annual report is high quality photographs.

More recommendations on effective uses of graphic communication in annual reports include maps as most effective for showing the location of facilities, but tables and charts are effective for statistical highlights, multi-year performance measures, rank in industry, disbursement of sales dollars, and economic factors related to present and future markets (Brion, 1975). However, Costello (1976) reports that stockholders have little interest in the "fancy, four-color bar charts or photos."

Despite Costello's findings, two years later annual reports have abundant visuals in the forms of photographs, cartoons, drawings, tables, charts, graphs, and others (Thomas, E.G., 1978), and adequate charts are seen as the company's effort to communicate with its stockholders (Ruch, 1979). Glossy pictures and sleek graphs are an attempt to reflect the corporation's personality (Meyer, 1979). This trend continues as visual elements are now added to the financial section to make it more attractive and readable (Dunk, 1980; Paskowski, 1981). Annual reports read more like magazines--pictures and captions, text, and then financial information (Dyer, 1981).

Annual reports usually have five main divisions:

- (1) financial highlights,
- (2) a letter to the stockholders,
- (3) narrative with information on the company's operations,
- (4) management's discussion and analysis with financial statements, and
- (5) a list of the company's board of directors and officers.

Within those sections, twelve subjects are particularly suited to graphs and charts:

comparisons of

- (1) assets
- (2) capital expenditures
- (3) dividends
- (4) industry growth
- (5) liabilities
- (6) inventories
- (7) reserves
- (8) net worth
- (9) prices (trends of)
- (10) sales (by product group or division)
- (11) earnings (by product group or division) and
- (12) source and disposition of funds (taxes, wages, working capital)

(Brusaw, Alred, and Oliu, 1981 and 1993). Two years later the focus switches to checklist of questions to answer regarding photographs in annual reports, and this checklist emphasizes that photographs should aid in understanding operations and financial data, represent products without looking like a sales brochure, and reflect management's goals and philosophy (Rooney and Evans, 1983).

Using graphic communication is increasingly popular (Raynolds, 1983; Hoskins, 1984; Beattie, 1988; Kostelnick, 1988b), especially as an overview (Powers, Lashley, Sanchez, and Shneiderman, 1984), but Paulson (1988) suspects that bad news is probably being obscured by “flashy graphics.” A case study of DuPont’s use of graphic communication in annual reports in the early 20th century concludes that using graphic communication is increasing for two primary reasons: (1) a growing general understanding of the capabilities of visual elements and (2) a growing need for methods to analyze and communicate data in years of great business growth and development (Yates, 1985). However, Tonkin (1989), indicates that visual elements are used primarily in the nonfinancial sections such as employee information and value-added sections and does not give any information about the using graphic communication in the financial accounting sections, although his primary focus is on reporting financial information. Annual reports begin to focus more on international markets; as a result, world maps and photographs of American products with foreign labels are plentiful (Rothman, 1990).

In *Annual Report Design* in 1990, Herring states that the primary criterion for graphic communication is that it be easily understood by the reader, not confusing or misleading. Graphs have become the most used type of visual, but other types are also popular, and photographs can give the reader a feel for the company, its people, and its day-to-day workings (Herring, 1990).

Also in 1990, *The Complete Annual Report and Corporate Image Planning Book 5* concludes that after reviewing 1000 annual reports no other corporate publication receives the “lavish attention” that the annual report does. Although this book is primarily a list of suppliers with samples of their work, it does note that maps, innovative illustrations, and bright colors have become quite popular; however, it also notes that large conglomerates remain somewhat conservative in preparing their annual reports. Company performance history is being told through pictures, figures, and stories about products, employees, and

customers (Varner, 1991), and more full color photos are returning because readers see black and white as indicative of a bad financial year (Tuscon, 1994).

Finally, *Financial World*, in reporting the award winning annual reports for 1993, indicates that the judging is based on three aspects of the report:

- (1) presentation of stockholder and individual investor information,
- (2) pertinent written information, and
- (3) layout and typography.

It does not include any specific or general comments on using graphic communication in its analysis. Interestingly, none of the winners are in the Fortune 100 list for 1993.

Readability of Annual Reports. Studies on the readability of annual reports have focused solely on textual matters and have not included any analysis of the contributions of graphic communication to the overall readability of the report until the current study. Means (1981) finds that difficult reading levels do not significantly affect the stockholder's reactions to the reports; however, he omits graphic communication from his study. Further study on readability in annual reports indicates that reports of good performers are easier to read than those of poor performers, but the analysis is based on stylistic elements of writing and also includes no information on graphic communication (Subramaniam, Insley, and Blackwell, 1993; Jones, 1994).

SEC Guidelines. New rules from the Securities and Exchange Commission are expected to produce less misleading financial reporting (Smart, 1989). The SEC's mandate (Management's Discussion and Analysis of Financial Conditions and Results of Operations; Certain Investment Company Disclosures, 1989) states that any information that may affect a company's prospects for the future must be disclosed. In general, if an item is likely to have an effect on the company's future liquidity increasing or decreasing, it should be discussed in the report. What the SEC does *not* require is the slick four-color

photographs and “flourescent” pie charts and graphs (Howard, 1991). The SEC offers no instructions or requirements for graphic communication in annual reports.

Preparing Graphic Communication for Annual Reports

Although many sources offer information on preparing graphic communication, few emphasize or even address annual reports. Those offering information on preparing visual elements for annual reports often repeat information found in sources on charting statistics (e.g., Hall, 1943; Myers, 1950; Schmid and Schmid, 1979; Lefferts, 1981; Herring, 1990; *Using Ratios and Graphics in Financial Reporting*, 1993). A few sources suggest particular types of visual elements for specific uses in annual reports, and those exceptions follow, grouped by graphic type, to show that these sources, as the others, offer no information on how graphic communication differed in years of net loss.

Tables. Comprehensive information on preparing tables for annual reports covers titles, column arrangement, spacing, and source citations. Tables are easiest for locating and recalling specific information because the columnar arrangement helps readers identify the values they are seeking (Hall, 1943). Problems with tables in annual reports include bad titles, irregular stubs, scrambled box heads, frustrating footnotes, and a “conglomerate of constructions” (Mann, 1984).

Bar/Column Graphs. Horizontal bars are preferable for comparisons which do not involve time as a factor (such as products produced by divisions within a company), and columns (vertical bars) are most effective for chronological comparisons (Doris, 1948). Column graphs also take advantage of the normal left-to-right reading because the earliest year appears on the far left (Doris, 1948). Bar/column graphs rate higher than line graphs and surface graphs because comparing the bar lengths/heights is easier than reading the changes on a line graph or surface graph (Culbertson, 1959; Feliciano, Powers and Kearn, 1963). Horizontal bars are most often preferable to vertical ones because horizontal ones

rely on the usual left-to-right reading pattern (Culbertson, 1959). Again citing the familiarity of left-to-right reading, Macdonald-Ross (1978) agrees that horizontal bars are preferable, especially for the general public such as the readers of annual reports, but he does not differentiate between the use of columns and bars.

Pie Graphs and Maps. For pie graphs, the more sections they have, the more errors that occur in both preparing and interpreting (Croxtton and Stryker, 1929). Other problems with using pie graphs relate to the ordering of the sections and determining the appropriate percentages (Lutz, 1949). Furthermore, pie graphs are visually ineffective even when they are properly prepared because readers have difficulty in converting percentages to actual numbers (Dickinson, 1973). Maps are cited as very effective in annual reports because they rely on information familiar to most readers and are best used to show the various components of the company's business ventures (Dickinson, 1973). The best maps have dominant shading or symbols to emphasize main areas (Dickinson, 1973).

Conclusions

The available literature *suggests* that readers suspect bad news in annual reports when any of the following three characteristics are found:

- (1) a lack of visual elements that leaves the readers believing there is nothing good to show,
- (2) black and white pictures rather than color that suggest to readers that the outlook is bleak, and
- (3) flashy graphic communication that readers suspect covers up bad news.

However, no one has actually conducted any research to prove or disprove those suspicions. The available literature also confirms that no one has analyzed which types of graphic communication corporations use in the various sections to help clarify the complex

financial information, nor have researchers looked for significant changes as a result of the SEC's 1989 mandate for clearer financial reporting. These omissions in the literature led to this study of how graphic communication differs in annual reports of net loss years.

The following conclusions, drawn from the literature review, will be helpful in analyzing the graphic communication in net loss year annual reports:

1. Additional graphic communication in net loss year annual reports may help readers understand more easily the factors leading to the net loss and the subsequent effects, as well as the current and future financial status of the company.
2. Additional graphic communication in net loss year annual reports should present subject matter not covered in profitable years only as it helps the reader understand the company's current and future financial condition.
3. Additional figures and tables throughout the MD&A section in net loss year annual reports help readers understand the current and future financial status of the report.
4. Figures familiar to readers are preferable because readers process these more easily.
5. Placing graphic communication on the left and text on the right makes most effective use of readers abilities to process graphics and text used together.
6. The most efficient tabular arrangement is vertical columns because readers scan vertically and read horizontally.
7. Figures are most effective when they are clear of distractions and clutter.
8. Graphic communication should appear as close as possible to its introduction and reference.

9. The upper half of the page is preferable for graphic communication in annual reports because it has greater impact.
10. Because graphic communication often serves as a summary for readers, consistently placing the visuals in the same place on the page will allow the readers to find the visuals quickly because readers will recognize the pattern and begin to expect that placement.
11. All visual elements should have appropriate introductions and/or references in the text to alert the reader about when to examine the visual and what to look for.
12. Color is useful for directing attention, adding emphasis, clarifying complex information, and aiding in decision making, but it must be used purposefully to prevent it from causing the reverse of its benefits.
13. The most effective types of figures for annual reports are bar and column graphs (and their many variations), pictograms, line graphs, maps, drawings, and charts.
14. Columns are preferable to bars for showing trends based on time.
15. Bar and column graphs are the most effective for comparisons based on a common scale because these comparisons are the most accurate of perceptual tasks.
16. Bars or columns should have the actual numerical amounts given at the end of the bar or column so that readers do not have to guess the amounts.
17. Pictograms are acceptable substitutes for bar/column graphs if the symbols representing the data increase in number and not size (area).

CHAPTER 3

METHODS AND MATERIALS

Completing the research for this project involved four major tasks:

- (1) deciding on the companies to investigate and for what years,
- (2) obtaining the annual reports,
- (3) collecting data from the selected companies' annual reports, and
- (4) analyzing the collected data. Because *Fortune* magazine offers a detailed

review of the top 500 companies in the United States each year, its 1993 rankings report provided excellent information to help choose the ten companies needed. The year 1989 was a focal point for selecting the time span of the annual reports to examine because that year the Securities and Exchange Commission (SEC) mandated changes in annual reports, calling for more detailed disclosure. Choosing a ten-year span allowed for analyzing changes, if any, that appeared. Because such changes may not be immediately evident in the visual aspects of the annual reports in the first year or two, a five-year span after 1989 paired with a five-year span before gives more opportunity to compare reports published before the new guidelines to those published after.

Selecting the Ten Companies

In 1993, *Fortune* divided the top 500 companies into 27 groups based on the types of product sold. This year, 10 of the 27 groups had 20 or more companies each, suggesting that companies in each of the 10 groups had substantial competition and thus a need to convince investors to maintain or make investments. Choosing companies from

different product groups would overcome financial trends related to a particular industry and thus eliminate the concern that a series of net loss years would affect a greater portion of the reports examined than is representative of the group as a whole. The following list includes the top company in each of those ten product groups that had 20 or more representatives:

- (1) General Motors (GM) -- motor vehicles and parts (#1 overall on Fortune list)
- (2) Exxon -- petroleum refining (#3 overall on Fortune list)
- (3) International Business Machines (IBM) -- computers (#4 overall on Fortune list)
- (4) General Electric (GE) -- electronics (#5 overall on Fortune list)
- (5) Philip Morris -- food (#7 overall on Fortune list)
- (6) DuPont -- chemicals (#10 overall on Fortune list)
- (7) Eastman Kodak -- scientific, photographic, and control equipment (#20 overall on Fortune list).
- (8) International Paper -- forest and paper products (#33 overall on Fortune list)
- (9) Tenneco -- industrial and farm equipment (#34 overall on Fortune list)
- (10) Alcoa -- metals (#54 overall on Fortune list).

As it turned out, three of these companies had no net losses during the years examined and thus were useful only for looking at overall trends in the use of visual elements. To have had three companies in their place that did incur losses would have perhaps yielded additional information, but part of the analysis is based on comparing profitable years to net loss years. This analysis also includes comparing reports of companies without any net losses in the ten-year period to those companies who do experience losses.

Designing and Preparing the Research Tools

Annual reports have five major sections: financial highlights, letter to the stockholders, narrative or scope of operations, management's discussion and analysis (commonly abbreviated MD&A), and board of directors and officers. Collecting data from each report took place in two stages: first a quantitative stage that included counting and measuring, and second a recording stage that included making lists of the subjects of the various types of visual elements. Having detailed information on how many, what kinds, and what sizes coupled with information on what the topic is for each element allowed for a series of comparisons of reports in net loss years to those in profitable years. A sample of the spreadsheet used to collect much of the quantitative data appears in Appendix B on page 166.

The primary comparison for all data collected was how the element being examined differed in the net loss year reports from reports in profitable years. This comparison included the following:

- (1) number of tables, photos, figures, and number of different colors used, numbers and types of specific figures (e.g., bar graphs, maps, flow charts, pictograms),
- (2) presence (or absence) of a reference or introduction to the visual elements,
- (3) presence (or absence) of clear captions (titles),
- (4) placement of visuals on the page (e.g., location of top, bottom, right, left),
- (5) integrity of the visual elements,
- (6) typography--looking for the use of serif or sans serif, or a combination of both and where they were used,

- (7) presence (or absence) of a photo on the outside cover and on the inside front cover and the type of color used for the photo (was it full color, black and white, colored half-tones).

The two primary hypotheses for this study are as follows:

- (1) Net losses do not cause decreases in the graphic communication in annual reports.
- (2) The 1989 SEC mandate does not cause an increase in the graphic communication in net loss year annual reports.

Collecting the Data From Primary Sources

The first or quantitative stage of collecting data included counting the number of tables, photographs, and figures each report had in total and then how many of each were represented in the five annual report sections. This stage also included counting and recording, by report section, each individual type of figure used and each individual color used (Pantone® color numbers were used as a reference point for readers) and measuring each photograph and figure with an inch-scale ruler. Also included were noting the presence or absence of references or introductions to the visual elements, clear captions or titles (descriptive titles that tell what the reader should look at), and photographs on the front or inside front cover, as well as checking the integrity of the visuals, the typeface used, and placement of the visual on the page. Recording the titles of tables and figures and focal points of the photographs in each report provided the basis for later comparison of the subject matter of tables, photographs, and figures. Recording this information by annual report section insured that comparisons could be made both within the sections and among the reports as a whole.

Integrity of the visual elements focused on clear representation of the facts (based on balance sheets and other financial data supplied) and an effective graphic design that

allows the reader to see easily what information is being presented (i.e., clearly labeled and appropriate scales and scale breaks, clearly labeled and appropriate scales, bars, lines, maps). Specific details included were the presence or absence of distractions or clutter, presence or absence of numbers at the ends of the bars/columns and on sections of pies, changes in the number of symbols rather than size in pictograms, and correct percentages on pie graphs.

Financial status of the company for each year was a key factor for the comparisons to be made. As most stockholders lack extensive accounting backgrounds, they would most likely look at the bottom line--did the company make a profit? Thus, a good financial year was one in which a company experienced a net profit, and a bad year then would be one in which the company experienced a net loss. If a company experienced a great improvement over a previous year but still showed a net loss, it was still a bad year. Most stockholders would look to see whether or not the company made money in a given year and to see forecasts for the coming year. Financial status for each company was determined by reading the letter to the stockholders and analyzing the financial highlights and financial reports.

Analyzing the Data

Three comparisons provided the bases for analyses. First, the seven companies' net loss reports were compared to all reports based the characteristics listed earlier to identify what changes, if any, occur when companies must report a net loss. Second, individual company's net loss reports were compared to the company's reports as a whole, looking for changes, if any, particular to a certain company. Third, the net loss reports were divided into two groups based on the 1989 SEC ruling, and net loss reports before the ruling were compared to the reports after the ruling. each company had five reports in each group: 1985-1989 and 1990-1994. The first items compared were some of the more

obvious ones in which differences could be found such as increases or decreases in the total numbers of tables, photographs, or figures appearing in a report as well as the sizes and colors of visuals. Also included at this point were comparing placement on the page by noting whether the visual elements were at the top or bottom, inside, outside, left- or right-hand columns as well as within the various reports sections and comparing typography to see if the text was in all serif, sans serif letters or a combination of both. Differences in typography were limited to text, headings, table titles, and figure and photo captions. The purpose of the comparisons was to look for trends or patterns related to graphic communication that began to emerge such as a certain type of graphic, a certain size of graphic, a certain placement of a graphic, or certain colors that consistently show up when companies experience a net loss. Also examined were changes in the presence or absence of clear captions, references to visual elements, and graphical integrity.

Comparisons of changes in subject matter of graphic communication were made by examining what the companies chose to display either in tables, photographs, or figures. The focus of the search was highlights of particular positive feats, problems or issues such as new products, new products gone sour, or environmentally sound manufacturing practices.

The next analyses involved comparing the various graphic communication in annual reports before and after the 1989 SEC mandate for more thorough disclosure of any factors that could influence a company's financial status. Grouping the reports by date yielded five years of reports in each group, 1985-1989 and 1990-1994. This comparison involved the same elements as the previous analyses with the change being the focus on differences that occurred in the reports 1990-1994.

Statistical Analyses

The next stage of the analysis involved two statistical tests: t tests and chi squares. The t tests compared data from the net loss years to the profitable years for the seven companies in the group that experienced losses between 1985-1994. Because Exxon, General Electric, and International Paper experienced no losses, they were excluded from these tests. The items analyzed were total number of visual elements, total number of tables, total number of photographs, total number of figures, grouped bar/column graphs, divided bar/column graphs, and column graphs.

The chi square analyzed two elements, tables and figures, for net loss years among four annual report sections: Financial Highlights, Letter to the Stockholders, Narrative or Scope of Operations, and Management's Discussion & Analysis. This analysis excluded photographs because they do not convey quantitative data that may help explain a net loss.

The chi square also proved useful in comparing the data of reports prior to the 1989 ruling to those after the ruling. This analysis examined the three elements of tables, photographs, and figures for net loss years versus profitable ones before and after the 1989 ruling.

Summary

Each aspect of the analysis focused on the company's or companies' financial status to establish trends and patterns, looking for what was done differently in annual reports of net loss years and the significance, if any, of those differences. The results of all analyses appear in Chapter 4, Findings of the Research.

CHAPTER 4

FINDINGS OF THE RESEARCH

The research findings focus on how annual report graphical elements differ in the years when the select companies experience a net loss as opposed to a net gain. Of the ten companies examined, three experience no net losses during the 1985-1994 review period: Exxon, General Electric, and International Paper; thus, no findings relevant to those companies appear in this chapter. The remaining seven companies experience a combined total of 16 net loss years. These companies are Alcoa, DuPont, General Motors, IBM, Kodak, Philip Morris, and Tenneco. A list of companies' net loss years is shown in Table 1 below.

Table 1. List of Companies With Net Losses During 1985-1994 By Company and Year

Companies	Years of Net Loss
Alcoa	1985, 1992
Du Pont	1992
General Motors	1990, 1991, 1992
IBM	1991, 1992, 1993
Kodak	1993
Philip Morris	1993
Tenneco	1985, 1986, 1987, 1991, 1992

The primary hypotheses provide the overall framework of this chapter. The first section focuses on findings related to the first primary hypothesis: net losses do not cause changes in the graphic communication in annual reports. This section has six major divisions:

- (1) characteristics examined that do not change noticeably during the net loss years.
- (2) changes in actual numbers of visual elements, a combination of tables, photographs, and figures, in the net loss years.
- (3) changes in individual types of figures.
- (4) changes in sizes of photographs and figures.
- (5) changes in the information conveyed by visual elements.
- (6) changes in visual elements within the five sections of the annual report.

The next section presents findings related to the second hypothesis: the 1989 SEC mandate does not cause changes in the graphic communication in net loss year annual reports from 1990 to 1994. This section also has six major divisions:

- (1) characteristics examined that do not change noticeably after 1989.
- (2) changes in actual numbers of graphic elements, a combination of tables, photographs, and figures, after 1989.
- (3) changes in individual types of figures after 1989.
- (4) changes in sizes of photographs and figures after 1989.
- (5) changes in the information conveyed by visual elements after 1989.
- (6) changes in visual elements within the five sections of the annual report after 1989.

A summary of the data collected for each company's ten annual reports appears in Tables D1-D10, Appendix D, pp. 171-191.

Characteristics Demonstrating Negligible Differences in Net Loss Reports

Of the eleven characteristics examined, six demonstrated little or negligible change during years of net loss for the companies reviewed. These six characteristics are

- (1) typography,
- (2) layout,
- (3) references,
- (4) captions,
- (5) integrity of graphical elements, and
- (6) colors used.

Negligible changes include no change, changes that occur in only one of the 16 net loss years as opposed to the 54 profitable years, changes that do not affect all six sections of the annual report, or changes that are not consistently found only in years of net loss.

Typography. Of the sixteen net loss year reports examined, only one company has a report with a typography style that appears only in a net loss year. In 1992†,¹ Alcoa's annual report has sans serif type in all six parts of the report while reports of profitable years have a serif font or a combination of serif in the text and sans serif for headings and graphic communication. Other companies' reports in 1992 have a serif or a combination of serif and sans serif font. Even though Alcoa also experienced a loss in 1985†, the only year with sans serif typography is 1992†. Alcoa's other reports contain serif type or a combination of the two. For the other six companies, net loss year reports reflect no discernible typographical changes from other years. Details of typography in each company's ten reports appears in Tables D1-D10, Appendix D, pp. 171-191.

Layout. Layout here refers to placement on the page of the tables, photographs, and figures, and layout varies from year to year and company to company with no apparent consistency within or across. The one layout or placement that is unique among all net loss

¹ Here and throughout the chapter the "†" indicates net loss years.

year reports is Philip Morris' 1993† report. In the letter to stockholders, figures are placed on the inside column at the top and bottom of the page. This layout appears only for one year in this section. For most companies, the placement varies even within sections in a year's report. Figures might appear in any position on any page, with no concern for any type of consistent placement. Information about layout in each of the 10 companies' reports appears in the "placement of visuals on page" lines of each annual report section in Tables D1-D10, Appendix D, pp. 171-191.

References and Introductions. References to graphical elements are rare in these annual reports, the exception rather than the rule, especially with photographs. For example, Alcoa's 1985† report contained 8 tables, 10 photographs, and 52 figures, but had references to only one of the figures, three of the tables, and none of the photographs. This scenario is characteristic of reports in good years or bad. For the first time in the 10 years examined, DuPont introduces graphics in its 1992† narrative section, but that is the only year references appear in any of DuPont's reports. Tenneco likewise refers to graphic communication in its letter to stockholders in 1992†, and IBM introduces two tables in 1991† and three tables in 1993†, but not all visual elements appear in all sections. No identifiable consistency in references to visual elements appears in either good years or bad. A summary of the presence or absence of references to visual elements the ten companies' reports appears in the "intro/ref. to visuals" lines Tables D1-D10, Appendix D, pp. 171-191.

Captions. The captions for all graphical elements in all years are effective in that they are descriptive and informative, telling the reader what to focus on in the tables, photographs, or figures. This finding is true for all six sections of the reports. Again, details appear Tables D1-D10, Appendix D, pp. 171-191.

Integrity of Graphical Elements. Graphic communication with integrity

(1) has all elements labeled,

- (2) has all scales labeled with scale breaks easy to identify,
- (3) has numerical values reflected or stated,
- (4) makes comparisons that accurately reflect the data, and
- (5) does not distort the facts.

In other words, a graphic with integrity tells the story as it really is, not as the company would like it to be. Of the sixteen reports examined, only four contain any problems with integrity, and for each the problem is inconsistent labeling on column, bar, and pie graphs. For Alcoa's and IBM's loss years 1992† and 1993† respectively, the numerical amounts above the columns are omitted from the column graphs in the narrative and letter to the stockholders respectively. Philip Morris in its net loss report of 1993† likewise omits the numerical amounts on the bars in graphs in the financial highlights section. Finally, numerical percents are missing from the pies in Tenneco's 1991† financial highlights section. Because these four examples of omissions occur in only one section of the annual reports and are problems found also in reports of profitable years, these findings are negligible for the final analysis. Details on integrity of visuals appear Tables D1-D10, Appendix D, pp. 171-191.

Colors in Annual Reports. Of the seven companies examined, only three demonstrate any noticeable changes in the colors appearing in their annual reports. DuPont, in 1992†, has only six colors other than black in the report; however, the profitable year of 1989 also reflects only six other than black, and the 1994 report has only five colors other than black. Alcoa has no colored figures in 1992† when it experiences a loss, but 1991, a profitable year, is also colorless for figures. IBM's reports reveal findings similar to those for Alcoa. IBM's 1993† report, the last of three net loss years, has no color figures while its profitable year 1994 also lacks color in figures. Based on these findings, color is a negligible difference in net loss annual reports. A list of colors in each of the ten companies' annual reports by report section appears in Tables M1-M10,

Appendix M, pp. 345-366. A correlation to the Pantone® Color Matching System appears in Table N-1, Appendix N, pp. 367-372.

Changes in Visual Elements in Net Loss Annual Reports: Tables, Photographs, and Figures

This division contains four topics. The first is an overview of the variations in the total number of visual elements by company and net loss year. Next visual elements are subdivided into three separate categories: tables, photographs, and figures. The second topic is numbers of tables, the third is numbers of photographs, and the fourth is numbers of figures.

Total Numbers of Visual Elements. The total number of visual elements decreases in net loss year reports as shown in Figure 1, but the statistical T-test does not show this change to be significant ($p=.6$).

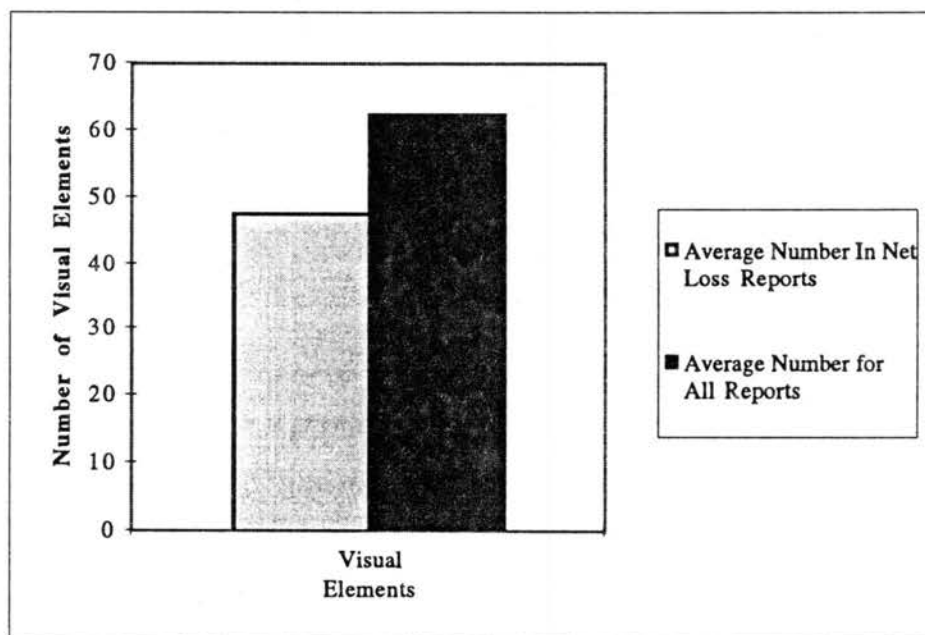


Figure 1. Average Number of Visual Elements in Net Loss and All Reports

Of the 16 net loss years, 10 of the 16 reports have fewer visual elements than the yearly average, resulting in 4 of the 7 companies (GM, IBM, Kodak, and Tenneco) having fewer visual elements in net loss years than profitable ones (see Figure 2). Likewise, as shown in Figure 3, 5 of the 7 companies (GM, IBM, Kodak, P. Morris, and Tenneco) have fewer visual elements in their net loss reports than their companies' averages for the ten years examined. IBM in 1991† and 1992† has fewer visual elements per report than any of the other nine companies examined with only 21 each year's report.

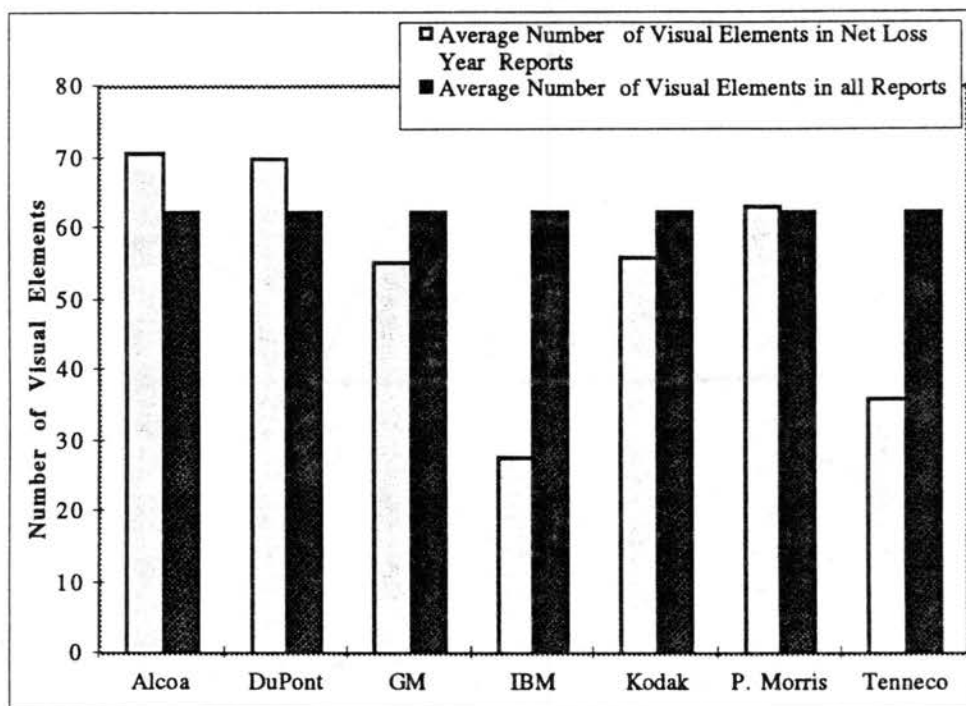


Figure 2. Average Number of Visual Elements in Net Loss and All Reports By Company

Tenneco in 1985† likewise has fewer visual elements than any other company with only 34. With only 29 visual elements, Tenneco's 1991† report has the fewest of any of its ten reports. IBM's 1991† and 1992† reports also have the fewest visual elements for the company in the ten year period with 21 each. A detailed summary of the total number of visual elements by company and year for all companies appears Table E-1, Appendix E, pp. 192-193.

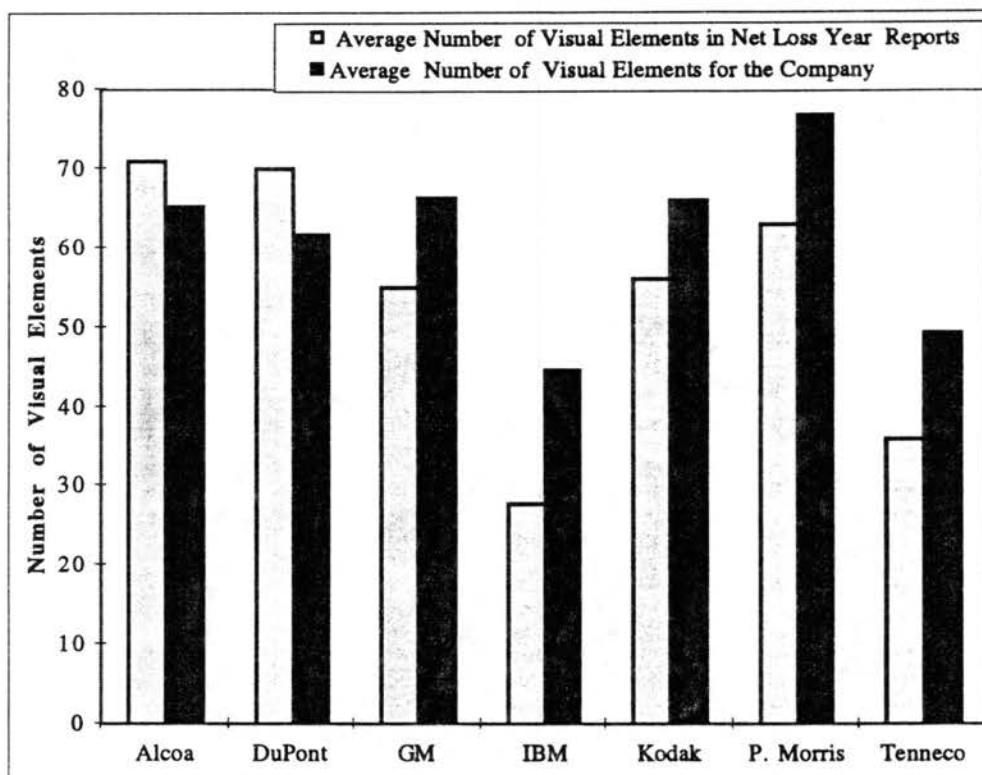


Figure 3. Average Number of Visual Elements in Net Loss Reports Compared With the Company Average

Tables. Individual companies use tables slightly more often during years of net loss than profit as shown in Figure 4. The statistical T-test confirms this finding; an increase in the number of tables in net loss reports is significant at the .05 level ($p=.05$). Of the 7 companies, 4 (Alcoa, DuPont, GM, P. Morris) have more tables in their net loss reports than is average for all reports (see Figure 5). However, only 3 (Alcoa, DuPont, and P. Morris) have more tables in their net loss reports than is average for the respective companies (see Figure 6). For Alcoa, the 17 tables in companies 1992† represent its greatest use of tables for the ten-year period. Likewise, GM's 19 tables in 1992† and Philip Morris' 24 in 1993† represent the highest use of tables for those in this study. GM and Philip Morris, with the above counts, also have the highest number of tables for the respective years. In contrast, the three tables in IBM's 1992† report represent the lowest number used by the company and the lowest number used in that year by any company.

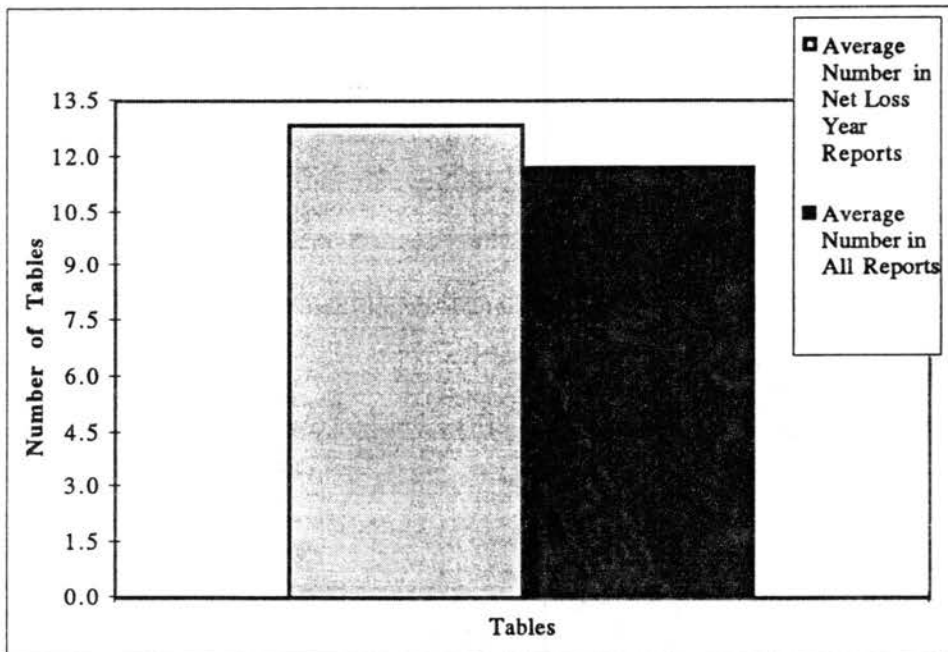


Figure 4. Average Number of Tables in Net Loss and All Reports

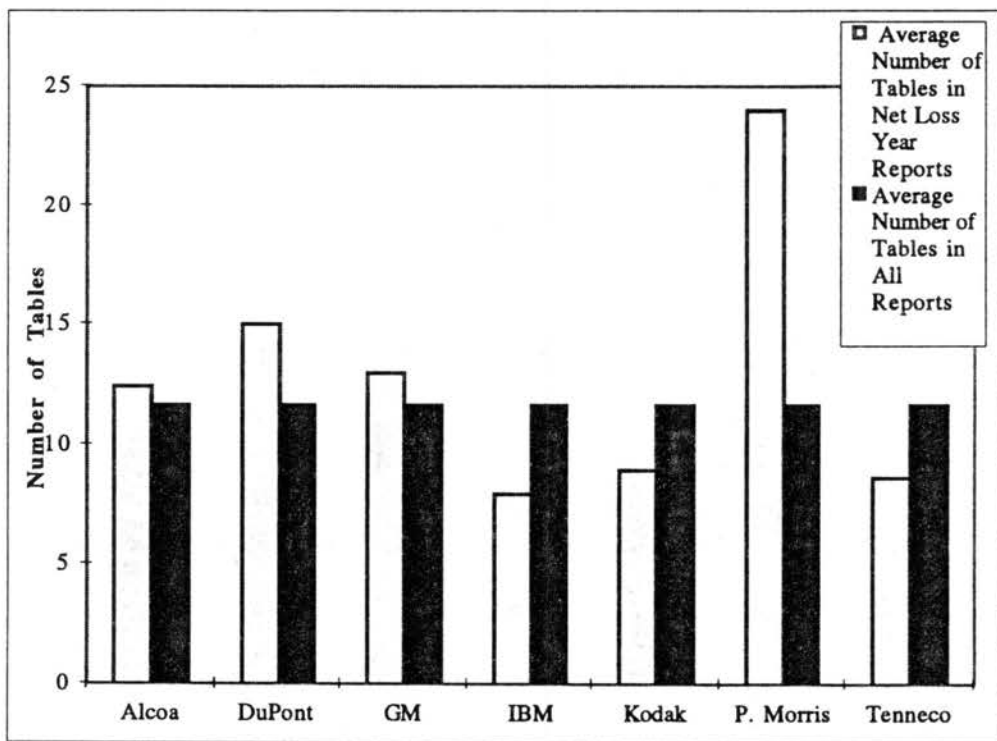


Figure 5. Average Number of Tables in Net Loss and All Reports by Company

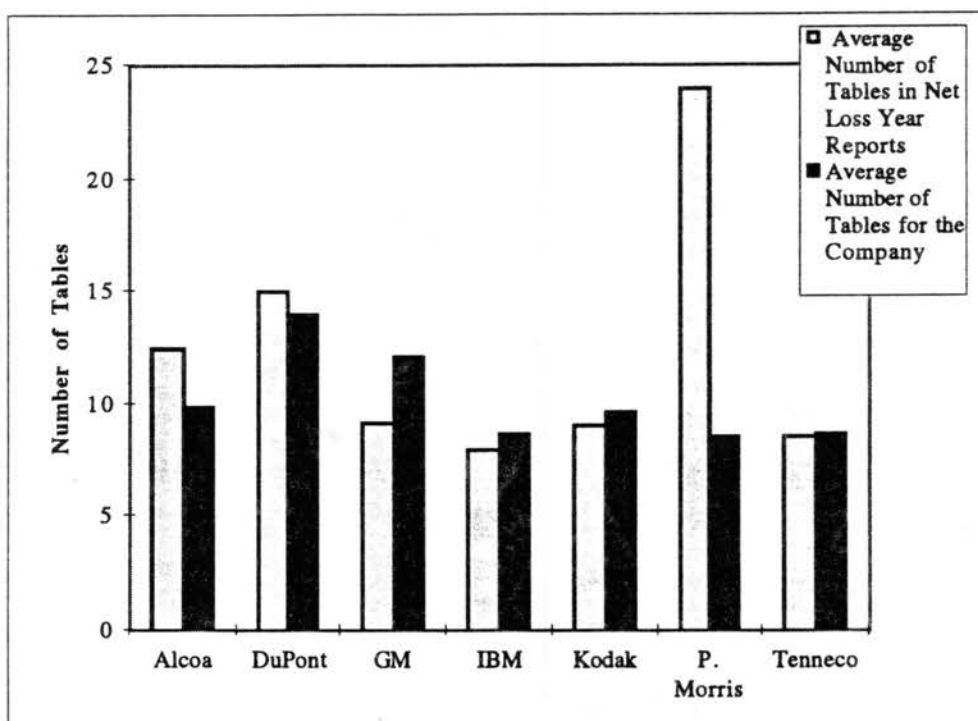


Figure 6. Average Number of Tables in Net Loss Years Compared to Average Number for the Individual Company

These findings indicate that the trend is to use more tables in net loss year reports. A detailed summary of the total number of tables by company and year for all companies appears in Table F-1, Appendix F, p. 195.

Photographs. The number of photographs declines in annual reports during years of net loss as shown in Figure 7, but this finding is not statistically significant ($p=.14$). All 16 reports have fewer photographs than the yearly average for each of the ten years examined, meaning that all companies use fewer photographs in net loss reports (see Figure 8). In addition, of the 16 net loss reports, 13 have fewer photographs than the company averages for that time period. As shown in Figure 9, only one company, DuPont, goes against this trend and has *more* photographs in its net loss year reports than is its average. Conversely, photographs are at their ten-year low mark for GM in 1992[†], IBM in 1991[†], Philip Morris in 1993[†], and Tenneco in 1992[†]. Additionally, photographs are at a yearly low in reports from Alcoa 1985[†], IBM 1991[†], and Tenneco 1992[†]. The

trend here is to have fewer photographs in net loss year reports than in profitable ones. A detailed summary of the total number of photographs by company and year for all companies appears in Table F-2, Appendix F, pp. 196.

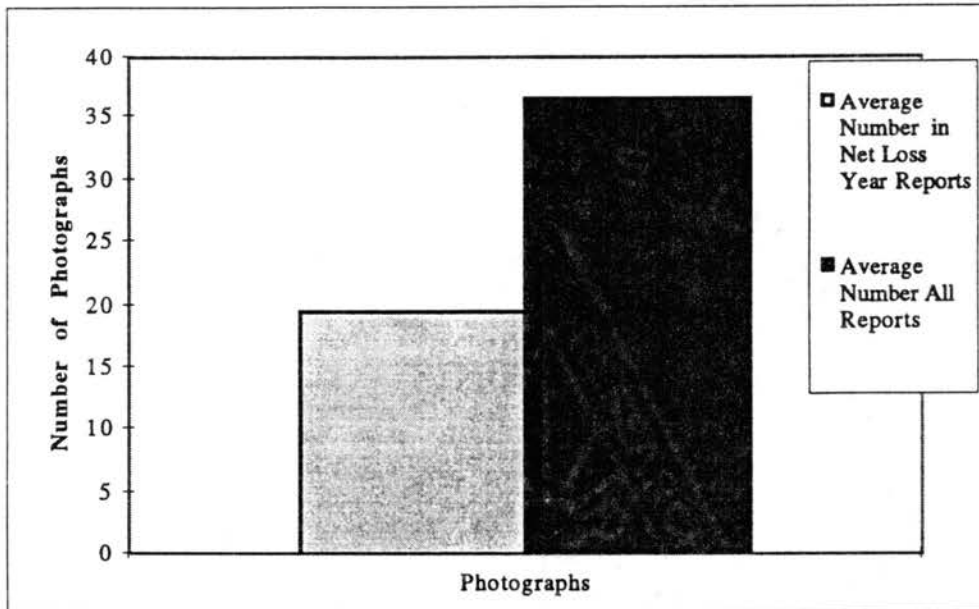


Figure 7. Average Number of Photographs in Net Loss and All Reports

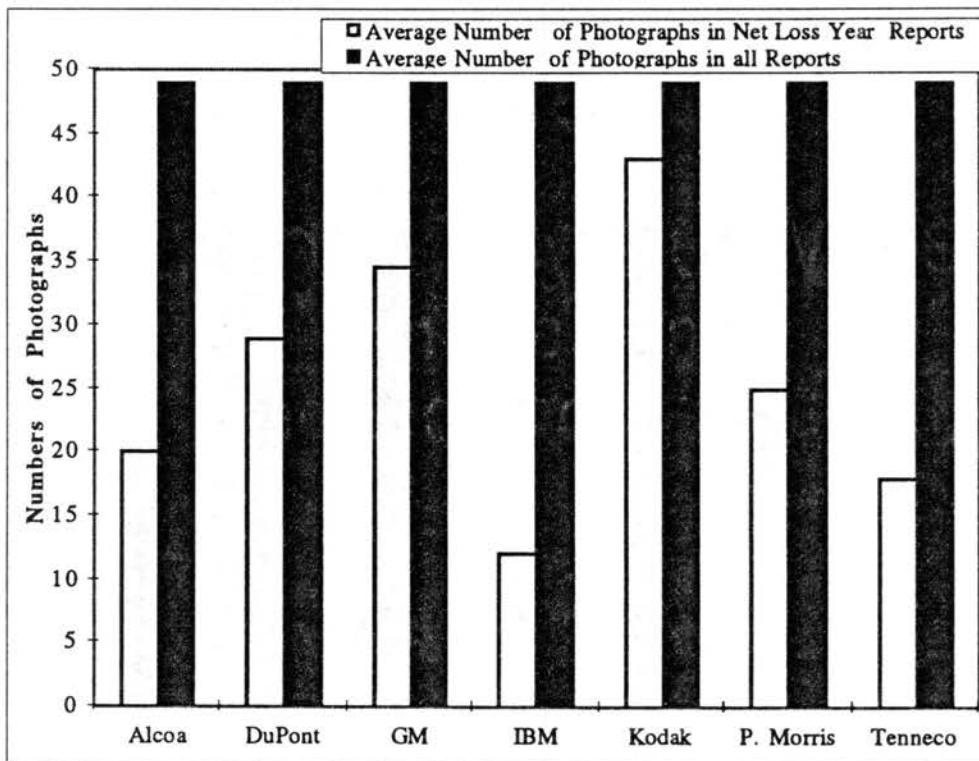


Figure 8. Average Number of Photographs in Net Loss and All Reports by Company

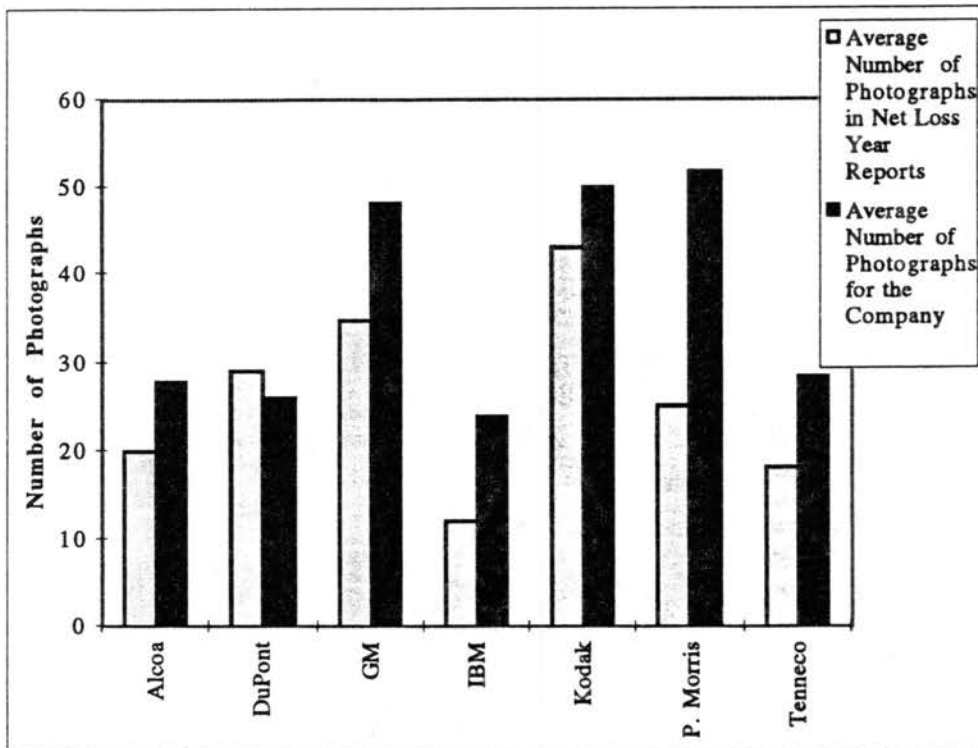


Figure 9. Average Number of Photographs in Net Loss Years Compared to Average Number for the Individual Company

Figures. The number of figures follows the trend of photographs as figures tend to be fewer in years of net loss as shown in Figure 10.

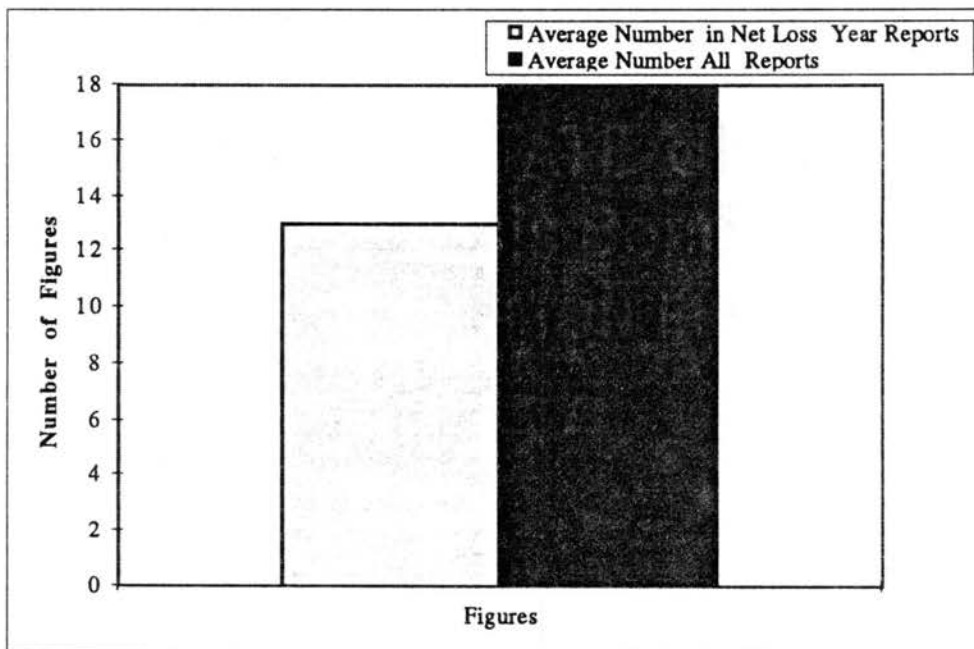


Figure 10. Average Number of Figures in Net Loss and All Reports

Based on a T-test, this finding is statistically significant at the .05 level ($p=.02$). Of the 16 net loss reports, eleven have fewer figures than is average for all reports. Additionally, 12 of the 16 net loss reports have fewer figures than their companies' respective averages for the ten-year period. As shown in Figure 11, these differences mean that 5 of the 7 companies (GM, IBM, Kodak, P. Morris, and Tenneco) have fewer figures in their net loss reports than is average for all reports, and 4 of the 7 companies (IBM, Kodak, P. Morris, and Tenneco) have fewer figures in net loss reports than is average for those companies (see Figure 12).

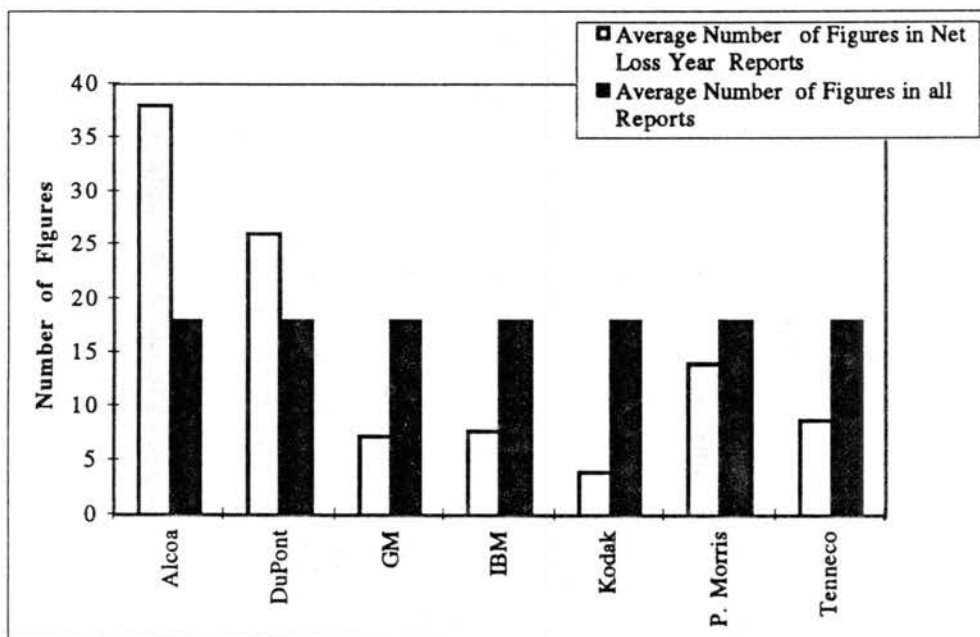


Figure 11. Average of Number of Figures in Net Loss and All Reports by Company

For several companies, their smaller number of figures during these years represents the fewest number of figures appearing in a company report for the 7 companies reviewed. For example, GM's one figure in 1990† represents both the fewest number used by the company and the lowest number used by all companies reviewed for the year, as the average number of tables for 1990 is 20.8. This finding also applies to Tenneco in 1992† with two figures and Kodak in 1993† with 4 figures. Tenneco's 4 figures in 1987† also

represents the lowest number used that year, while IBM's seven in 1991† is the low for that year. In contrast, Alcoa's 52 figures in its net loss report for 1985† is both the most used by the company during 1985-1994 and the most used by any of the ten companies for that year. GM's 15 figures in 1992† and Tenneco's 28 in 1992† both represent the greatest numbers of figures in their companies' reports for the respective years. Based on these findings, the trend is to have fewer figures in net loss year reports. A detailed summary of the total number of figures by company and year for all companies appears in Table F-3, Appendix F, pp. 197.

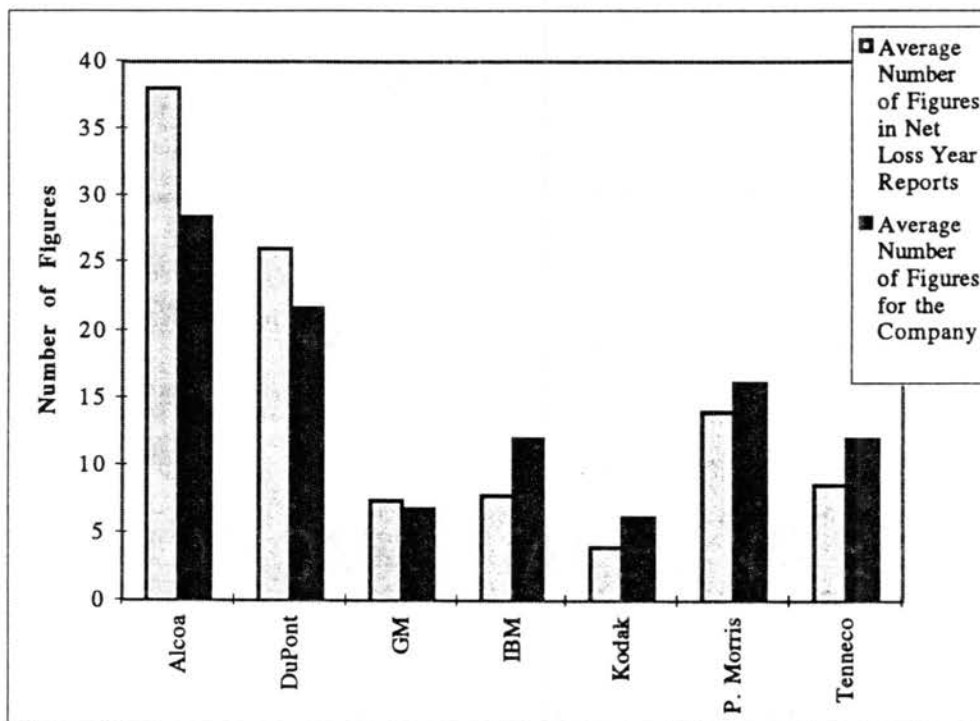


Figure 12. Average Number of Figures in Net Loss Years Compared to Average Number for the Individual Company

Individual Types of Figures in Net Loss Reports

Next, figures are subdivided into individual types. This list of individual types comes from the review of literature and combines information from sources on graphic

communication and annual reports. The 19 individual types of figures included in the investigation for this research project is as follows:

- | | |
|--|--------------------------------|
| (1) line graphs | (2) bar graphs |
| (3) column graphs | (4) pie graphs |
| (5) scatter graphs | (6) surface graphs |
| (7) 100% bar/column graphs | (8) paired bar/column graphs |
| (9) grouped bar/column graphs | (10) divided bar/column graphs |
| (11) deviated bar/column graphs | (12) pictograms |
| (13) histograms | (14) time lines |
| (15) line drawings | (16) renderings |
| (17) organization charts | (18) flow charts |
| (19) maps (Doris 1948, Schmid and Schmid, 1979; Lefferts, 1981; Horton, 1992). | |

Of these 19, scatter graphs and paired bar/column graphs do not appear in any of the reports. Also, in the ten-year period, the following figures appear, but not in years of net loss: six flow charts and eleven deviated and grouped bar/column graphs.

Some figures appear with relatively low representation in net loss years and are used much less often in net loss years than in profitable ones. These are

- (1) one organization chart (GM 1992†), (Figure 13),
- (2) two deviated bar/column graphs (IBM 1991† and 1992†), (Figure 14),
- (3) two pictograms (Alcoa 1985†), (Figure 14),
- (4) two maps (IBM 1992†), (Figure 14),
- (5) three 100% bar/column graphs (Alcoa 1985†, GM 1992†), (Figure 13),
- (6) three line graphs (Alcoa 1985†), (Figure 15),
- (7) four time lines (Alcoa 1985†, Tenneco 1987†), (Figure 13),
- (8) seven pies (Alcoa 1985† and 1992†, Tenneco 1987†), (Figure 15)

- (9) eleven logos (GM 1990†, P. Morris 1993†), (Figure 14),
- (10) twelve grouped bar/column graphs (Alcoa 1985† and 1992†, DuPont 1992†, IBM 1991† and 1992†, P. Morris 1993†), (Figure 16),
- (11) fourteen surface graphs (Alcoa 1985† and 1992†, Tenneco 1991† and 1992†), (Figure 15),
- (12) fifteen renderings (GM 1991† and 1992†), (Figure 14), and
- (13) twenty drawings (IBM 1993†, Tenneco 1987† and 1992†), (Figure 15).

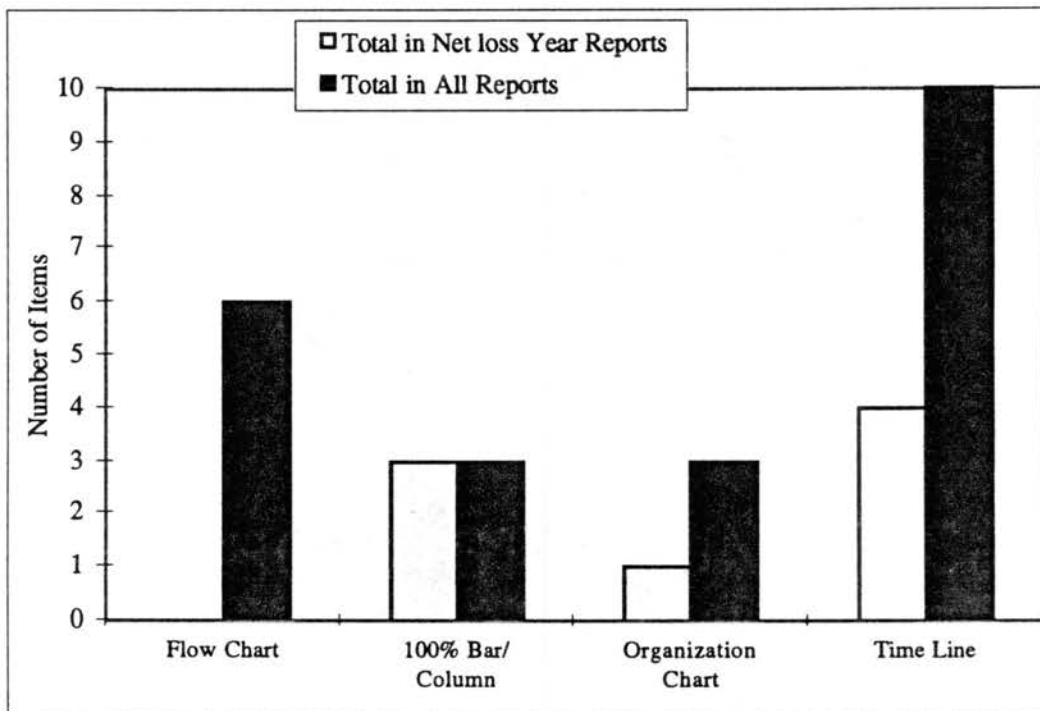


Figure 13. Total Flow Charts, 100% Bar/Column Graphs, Organization Charts and Time Lines in Net Loss and All Reports

Figures popular in all reports but still used less in net loss years than profitable ones are

- (1) divided bar/column graphs (Alcoa 1985† and 1992†, DuPont 1992†, GM 1992†, IBM 1991-1993†, Philip Morris 1993†), (Figure 17)
- and

(2) bar graphs (DuPont 1992†, Tenneco 1991† and 1992†), (Figure 15).

T-tests on two figures indicate no significant differences: divided bar/column graphs ($p=.41$) and grouped bar/column graphs ($p=.36$). Other types (except column graphs discussed below) of figures occurred in too few reports (four or less) to warrant statistical analysis. The most frequently appearing figures are the column graphs with a total of 420 overall and 88 of those helping to convey information about net losses (Alcoa 1985† and 1992†, DuPont 1992†, GM 1992†, IBM 1991-1993†, Tenneco 1985-1987† and 1991-1992†). A T-test indicates that column graphs increase in net loss year reports at a significance of .01 ($p=.003$).

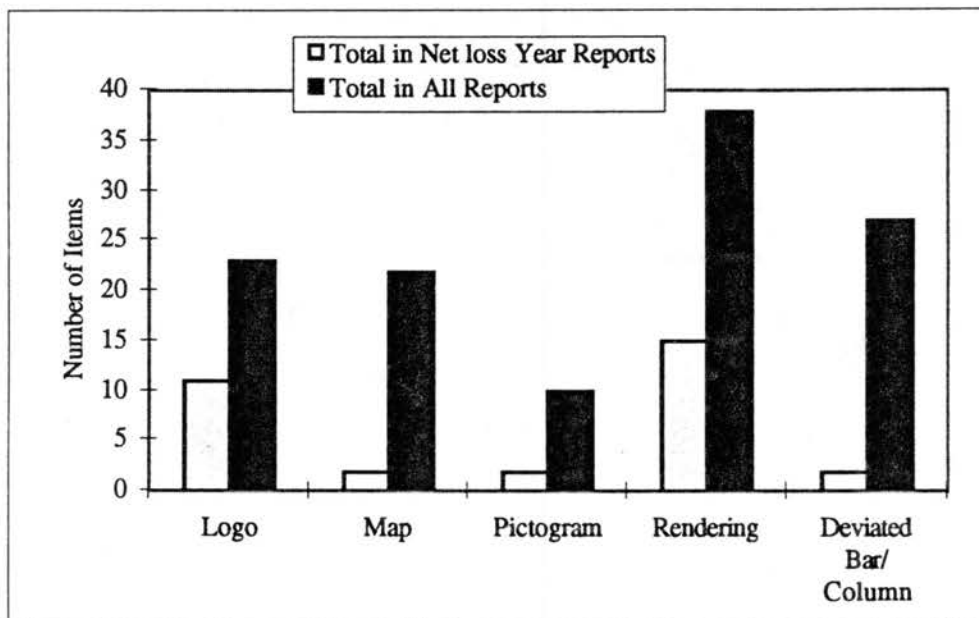


Figure 14. Total Logos, Maps, Pictograms, Renderings and Deviated Bar/Column Graphs in Net Loss and All Reports

Figure 18 shows a comparison of column graphs in net loss year reports to an average for all reports. Alcoa's large increase in column graphs results from using 24 in their 1985† reports; average for the company is 8.8. A summary of the numbers of individual types of graphics by company and year for all companies, please see Tables G1-G11, Appendix G, pp. 198-204.

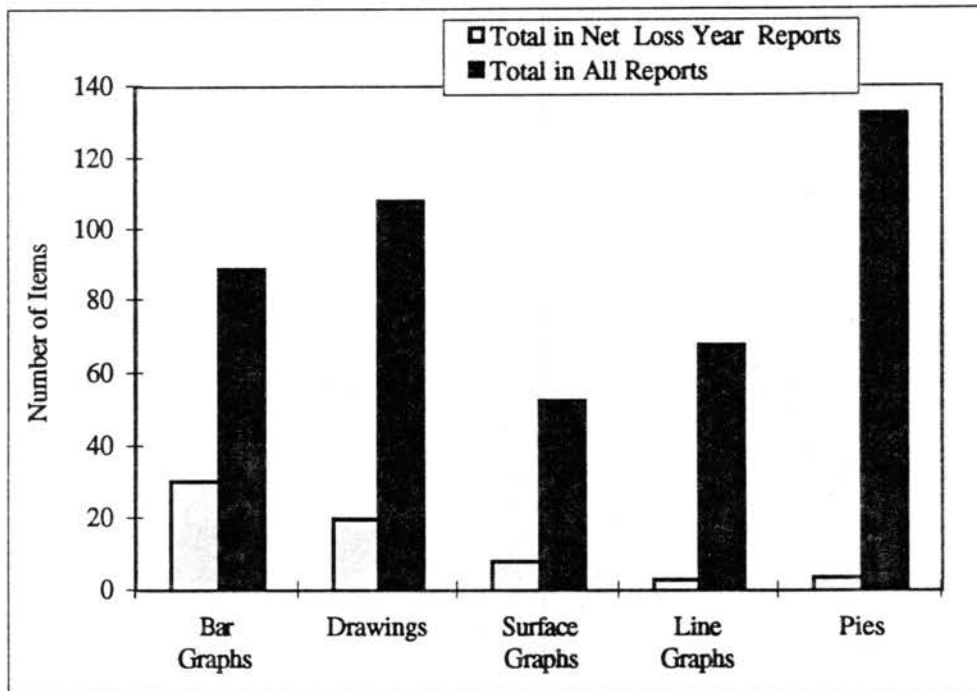


Figure 15. Total Numbers of Bar Graphs, Drawings, Surface Graphs, Line Graphs, and Pie Graphs in Net Loss and All Reports

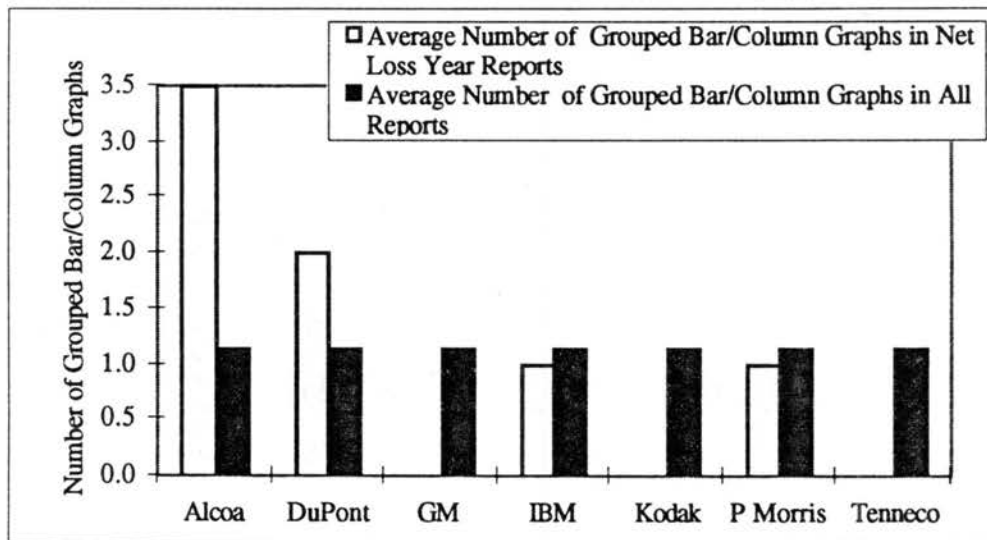


Figure 16. Average Number of Grouped Bar/Column Graphs for Net Loss and All Reports

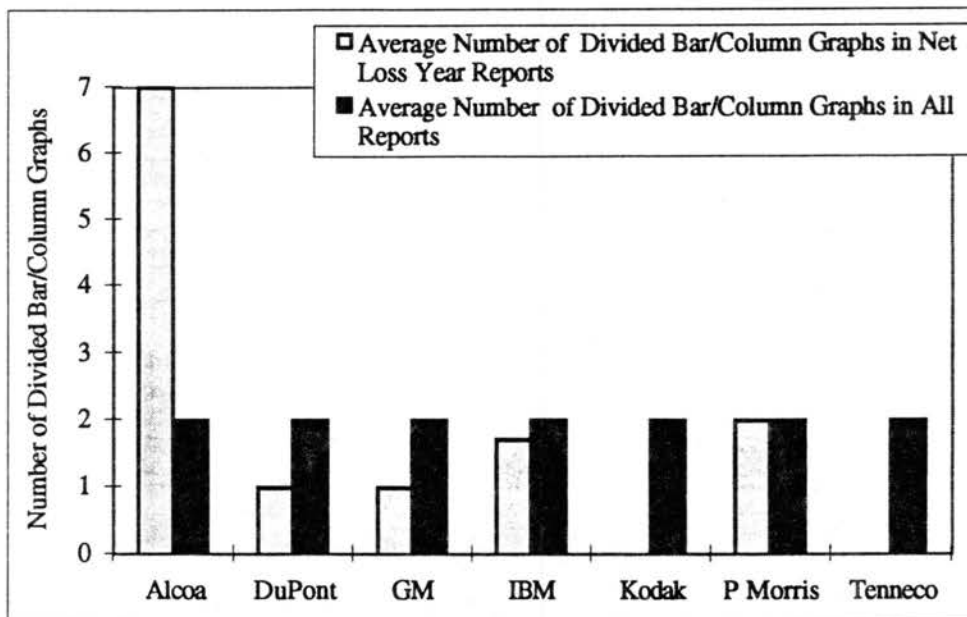


Figure 17. Average Number of Divided Bar/Column Graphs in Net Loss and All Reports by Company

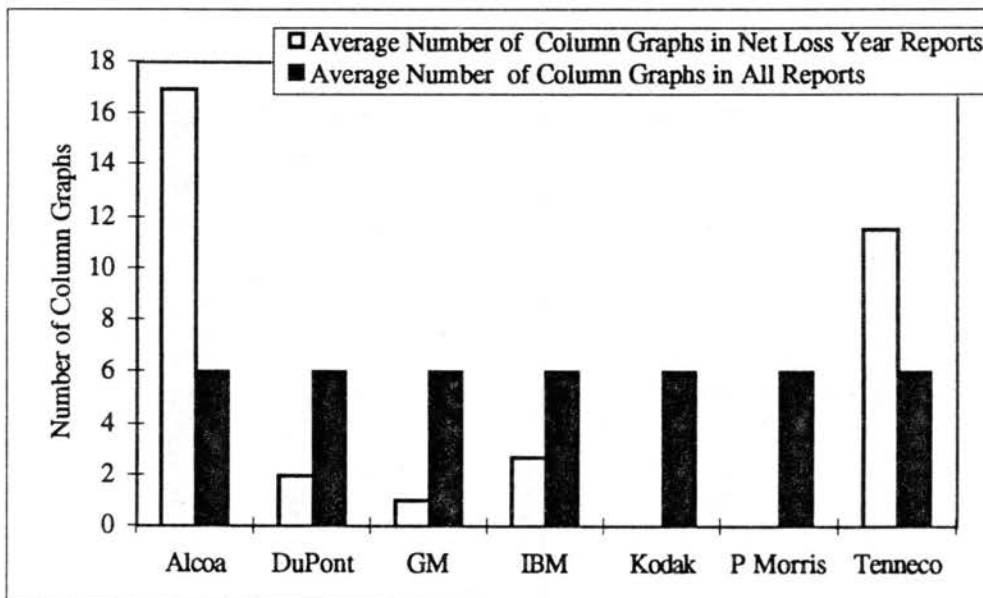


Figure 18. Average Number of Column Graphs in Net Loss and All Reports by Company

Sizes of Photographs and Figures in Net Loss Reports

An investigation of sizes of photographs and figures followed the individual numbers and types of figures in net loss years. Both sizes of photographs and figures vary

greatly by company and by year, but only a few noticeable differences appear in each type for net loss years.

Sizes of Photographs. Only four companies have differences in photographs, and these differences are found in only three years. In other words, many of these differences appear in like years for the four companies. Alcoa, in the MD&A section for 1992†, has larger photographs than for any of its other years. Likewise in 1993†, Philip Morris has its largest photographs of the Board of Directors. For IBM the difference is the use of full page photographs in 1991-1992† in the narrative sections while full page photographs do not appear in any sections of other report years except the narrative of 1994. In contrast to the larger photographs of these companies, DuPont in 1992† used a smaller photograph in its letter to stockholders than any of its other years. Again, these differences are few and may be negligible in the final analysis. A detailed listing of sizes of all photographs for all companies by year appears in Tables H1-H10, Appendix H, pp. 205-235.

Sizes of Figures. Sizes of figures vary more in net loss years than do the sizes of photographs, although the differences apply only to individual sections of the annual reports rather than to the report as a whole. For example, in 1985† Alcoa has smaller figures in the narrative than usual for its reports and in 1992† smaller figures in both the narrative and MD&A sections. IBM follows the trend of smaller figures in 1991† and 1992† with smaller figures in the MD&A sections. The financial highlights section of Philip Morris' 1993† report also has smaller figures.

In contrast, some companies have larger figures in some report sections during net loss years. GM uses larger figures in the narrative section of its 1991† report as does IBM in 1992† and 1993† and Kodak in 1993†. A summary of differences in sizes of figures in net loss years appears in Table 2 on the following page. A detailed listing of sizes of all figures for all companies by year appears in Tables I1-I10, Appendix I, pp. 236-257.

Subject Matter of Visual Elements in Net Loss Reports

The next item investigated was how the subject matter of those visual elements differs in net loss years. That data are presented here in three sections:

- (1) tables,
- (2) photographs, and
- (3) figures,

as before focusing on the annual reports from net loss years.

Table 2. Summary of Differences in Figure Sizes For Net Loss Years

Company	Year	Section of Report	Larger or Smaller
Alcoa	1985	narrative	smaller
	1992	narrative	smaller
		MD&A	smaller
GM	1991	narrative	larger
IBM	1991	narrative	larger
		MD&A	smaller
	1992	narrative	larger
		MD&A	smaller
Kodak	1993	narrative	larger
Philip Morris	1993	financial highlights	smaller

Subjects of Tables. Tables do not vary as much as do photos and figures. The major difference is the appearance of new topics in annual report tables, topics not found in reporting profits. For example, Alcoa's 1992[†] MD&A section contains tables on lost work days, business units and the markets they serve, and design criteria for developing new alloys-- topics not found in other year's reports. IBM likewise has tables conveying different information in 1993[†] than in any other years. In its MD&A section for the first time, topics appear such as hardware sales; software, service, rentals, and financing; working capital; debt and equity, and cash flows. Philip Morris, in its 1993[†] report, adds

a number of tables showing how Philip Morris compares to its competitors in the various market segments, showing itself to have the larger share of all markets discussed. It also includes tables to present the summaries of operating revenues and incomes by product category, subject matter appearing in only two of its other reports, both profitable years.

In contrast, some companies have fewer subjects covered in reports of net loss. DuPont omits the information about costs relating to and incurred in oil and gas producing activities in its 1992† report although that information is found in all reports for profitable years. Tenneco, after two year of net loss in 1985-1986†, condenses several tables about gas production and crude production into one table. This table is basically a general summary rather than the more specific tables of earlier years. Tenneco follows its own trend in 1991† and 1992† again offering only the more general overviews. A detailed list of topics of tables by company, year, and report division appears in Tables J1-J10 Appendix J, pp. 258-282.

Subjects of Photographs. The subject matter of most photographs is of five major topics:

- (1) manufacturing processes, equipment, and facilities;
- (2) employees at work;
- (3) domestic customers using products;
- (4) international customers using products; and
- (5) current and future products.

The few deviations in net loss years from these usual topics follow. Community Service is a topic of emphasis in Alcoa's 1992† report, with relevant photographs appearing in the narrative section. Kodak won the Baldrige Award in 1993† and includes a photograph of it in the narrative section. Tenneco in 1991† and 1992† has only photographs of the Chief executive officers and division heads, no products, and no customers. These are the major

differences in photographed subjects. A detailed list of photograph subjects by company, year, and report section appears in Tables K1-K10, Appendix K, pp. 283-306.

Subjects of Figures. Figures appear in five of the six sections of corporate annual reports at some point during the ten-year period. The excepted section is the board of directors section that has photographs as visuals, if any at all. Subject matter varies greatly, but most often relates to conveying numerical data about products, revenues, expenses, profits or losses, markets shares, raw materials, etc. Usually in reports of net loss, one finds use of a particular type of graphic to relay information not given in other years. For example, in DuPont's 1992† report, a surface graph shows the reductions in hazardous wastes-- a topic not appearing in any of DuPont's other reports.

For Alcoa's 1985† report, figures represent several subjects not covered in other years. Line graphs give an index of products, surface graphs show dollar exchange values for European monies, and time lines show significant aluminum developments for the past ten years. Energy-saving, good lighting is a new topic for Alcoa's 1992† report, shown in a grouped column graph.

Differences in 1991-1992† for GM lie in the absence of any figures depicting financial information about the company's yearly operations. No figures are present in 1990†, only drawings of new technology appeared in 1991†, and in 1992† reports have drawings of the GM leaders in the letter to stockholders and narrative rather than the usual photographs. Maps are the item of difference for IBM in 1993† and convey information about IBM's activities in North and Latin American, Europe, and the Asian Pacific.

Reports in 1993 contain figures representing new topics for two other companies as well, Kodak and Philip Morris. For Kodak, the 1993† report contains the only surface graphs and the only maps used in any of its reports. The surface graph focuses on the single-use camera industry, and the maps depict corporate locations for marketing sites, subdivision sites, research and development sites, and manufacturing sites. Both are topics

not covered in other years' reports. For Philip Morris, the topic is a narrowing price gap, represented by a grouped column graph.

Tenneco is another company with figures representing different topics in net loss year reports. Pie charts portray total assets in 1991†, and columns compare earnings per share and operating cash flow in 1992†. Also in the 1992† and 1993† reports, stock prices appear in surface graphs. Considering Tenneco has five years of net losses in the ten-year period examined, not until the last of those years, in 1992, does a column graph show operating losses. The trend for changes in subjects is more pronounced for figures than for subjects of tables or photographs. Tables L1-L10 in Appendix L, pp. 307-344, provide a detailed listing of figure subjects by company, year, figure type, and annual report section.

Placement of Visual Elements Within Net Loss Annual Report Sections

Annual reports typically contain five major sections:

- (1) financial highlights,
- (2) letter to the stockholders,
- (3) narrative or scope of operations,
- (4) management's discussion and analysis (MD&A), and
- (5) board of directors.

Of these, the board of directors' section has only photographs of board members, if it includes any visual elements. The other four sections, however, have all three categories of visual elements represented: tables, photographs, and figures. The following data, in order of report sections, relates to how the numbers of those visual elements vary within those sections during years of bad news.

Financial Highlights. This annual report section does not fluctuate in numbers of visual elements as much as some of the other sections, and companies are fairly consistent in their use of tables, photographs, and figures for the ten-year period. Slight differences include Alcoa's six figures in 1985† and eight figures in 1992† and Philip

Morris' seven photographs in 1993†. These three companies' reports all reflect increases in the numbers of those items for net loss years. As seen in Figure 19, tables, photographs, and figures appear less often in the Financial Highlights sections net loss year reports, but this finding is not statistically significant based on Chi-square analysis ($p=.79$).

Letters to Stockholders. Letters to stockholders, similar to the financial highlights section, vary little in changes found from year to year as most companies include a photograph(s) of the Chief executive officer(s) as the most commonly used item. The trend, similar to the Financial Highlights section, is to have fewer tables, photographs, and figures in net loss year reports (as shown in Figure 20), but again, this finding is not statistically significant based on Chi-square analysis ($p=.22$). Some companies, however, do include visuals other than photographs in this section, and a few differences show up in net loss years.

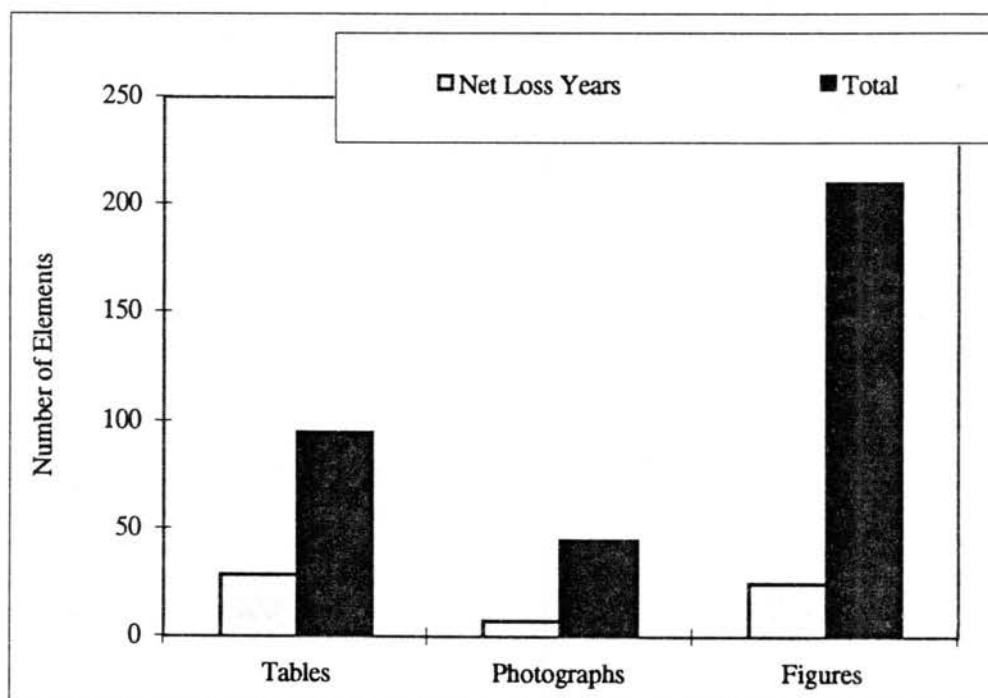


Figure 19. Number of Tables, Photographs, and Figures in Financial Highlights Section For Net Loss and All Reports

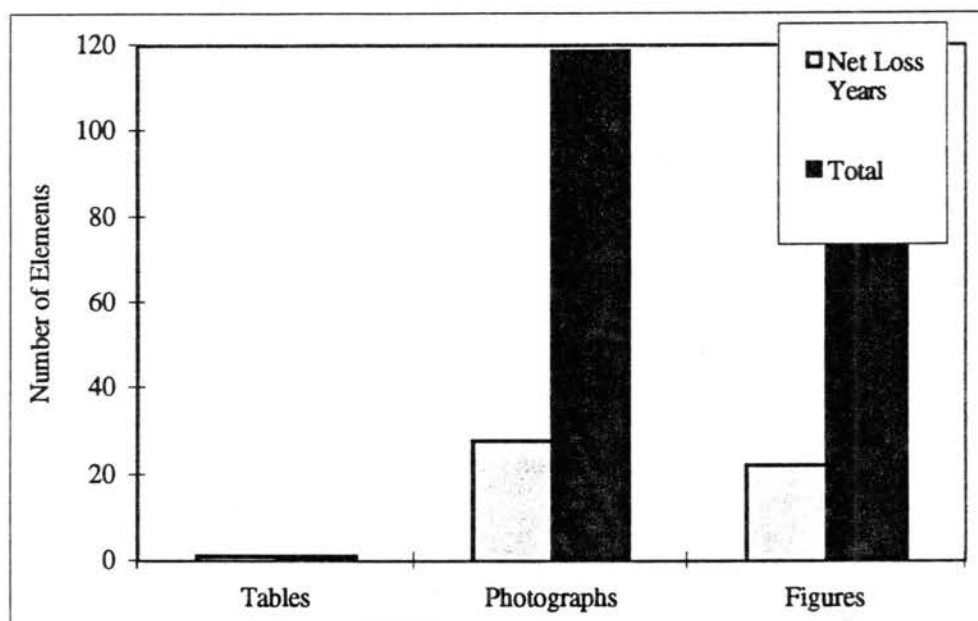


Figure 20. Numbers of Tables, Photographs, and Figures in the Letter to Stockholders in Net Loss and All Reports

Alcoa in 1992† has an usually large number of photographs (eight with the average being two), while Tenneco has a large number of figures for the same year (eight with the average being three). Looking at Tenneco's five years of net loss, one sees that Tenneco goes against the trend of fewer visual elements and uses both more tables and figures during net loss years than profitable ones.

Narrative or Scope of Operations. The narrative section contains more changes during net loss years than do the two previous ones; however, the overall result is fewer tables, photographs, and figures in net loss reports as shown in Figure 21. Chi-square analysis indicates that fewer tables and figures are close to being statistically significant at the 0.05 level ($p=.06$). The changes are almost evenly divided between increased and decreased numbers of elements. Alcoa's six photographs in 1992† represent not only the high number of photographs in this section, but the only ones in this report section for any of its reports.

The five photographs in DuPont's 1992† report also represent the most photographs in this section for any of DuPont's reports. In 1992†, GM and Tenneco also have their highest numbers of photos for this section. In contrast, in 1992† GM has its lowest number of tables in all its reports with only ten. The same is true for IBM's seven tables in 1991† and Tenneco's lack of any tables in 1992†. Thirteen figures in 1992† represent GM's greatest use in this section, while Tenneco has its lowest (none) in 1991†.

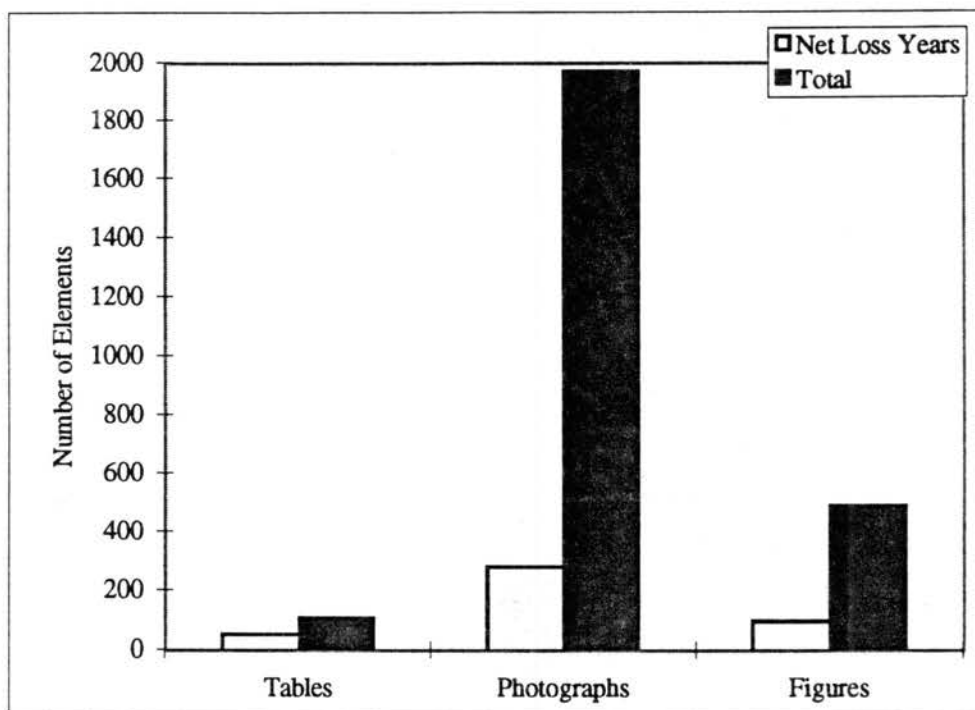


Figure 21. Number of Tables, Photographs, and Figures in the Narrative or Scope of Operations Section in Net Loss and All Reports

MD&A. The Management's Discussion and Analysis annual report section has only one change in net loss years, and Chi-square analysis indicates no significant findings ($p = .17$). Alcoa's 1985† report has a record high 35 figures for this section this year. Other years and other companies have only minor changes in visual elements for this section with tables, photographs, and figures appearing less in reports of net loss than profit (see Figure 22).

SEC Guidelines and Their Effect on Annual Reports

This section presents findings related to the second hypothesis: the 1989 SEC mandate does not cause changes in the graphic communication in net loss year annual reports from 1990 to the present. The Securities and Exchange Commission's (SEC) updated guidelines for annual reports in 1989 are aimed at getting companies to improve the quality of information in all reports.

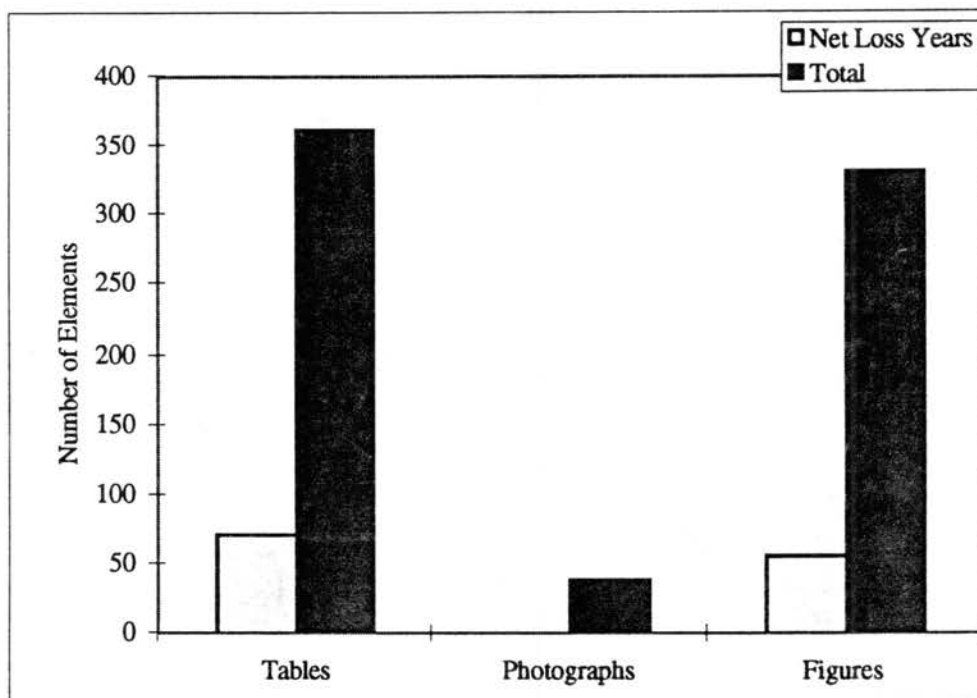


Figure 22. Number of Tables, Photographs, and Figures in the MD&A Section for Net Loss and All Reports

The SEC mandates that any information that may affect a company's prospects for the future must be disclosed in the Management's Discussion and Analysis (MD&A) section of the report. If an item can affect increases or decreases in the company's future liquidity, it must be discussed in the MD&A section; however, the SEC mandate does not include any requirements for graphic communication.

The overall trend in graphic communication in years following the 1989 SEC mandate is a very small decrease in the average number of visual elements by year for all ten companies. From 1985-1989, reports average 62.18 visual elements, and for 1990-

1994, they average 62.42, a difference of 0.25 visual elements. The number of tables for all companies increases after 1989 from 11.52 to 14.08, the number of photographs increases from 43.02 to 55, but figures decreases from 18.74 to 17.22 after 1989.

Characteristics Demonstrating Negligible Changes After 1989

Of the six elements examined that demonstrate negligible changes,

- | | |
|-----------------------------------|---------------------------|
| (1) typography, | (2) layout, |
| (3) references and introductions, | (4) captions, |
| (5) graphical integrity, and | (6) annual report colors, |

any changes that do occur are after the 1989 SEC ruling. These are presented earlier on pages 50-53 and will not be repeated here.

Changes in Actual Numbers of Visual Elements After 1989

For the seven companies with net losses during the ten-year period, the overall trend in the number of visual elements in annual reports is a decrease in graphic communication as a whole (see Figure 23) and within two of the three categories of visual elements: tables, photographs, and figures (see Figure 24). For companies with net losses, the average number of all visual elements in reports decreases from 46.5 for 1985-89 to 40.8 after 1990-94 with five of seven companies using fewer visual elements in net loss year reports during this period (see Figure 25). However, Chi-square analysis indicates that this change is not statistically significant ($p=.3$). Four of the seven companies (IBM, Kodak, P. Morris, and Tenneco) also use fewer visual elements in net loss year reports after 1989 than is average for the respective company (see Figure 26).

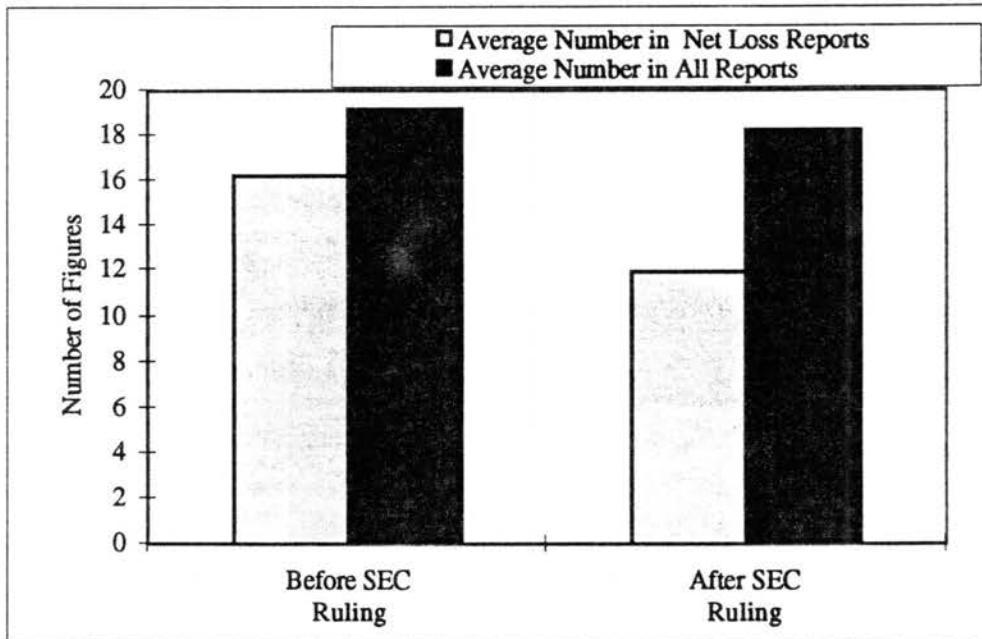


Figure 23. Average Number of Visual Elements in Net Loss and All Reports Before and After the 1989 SEC Ruling

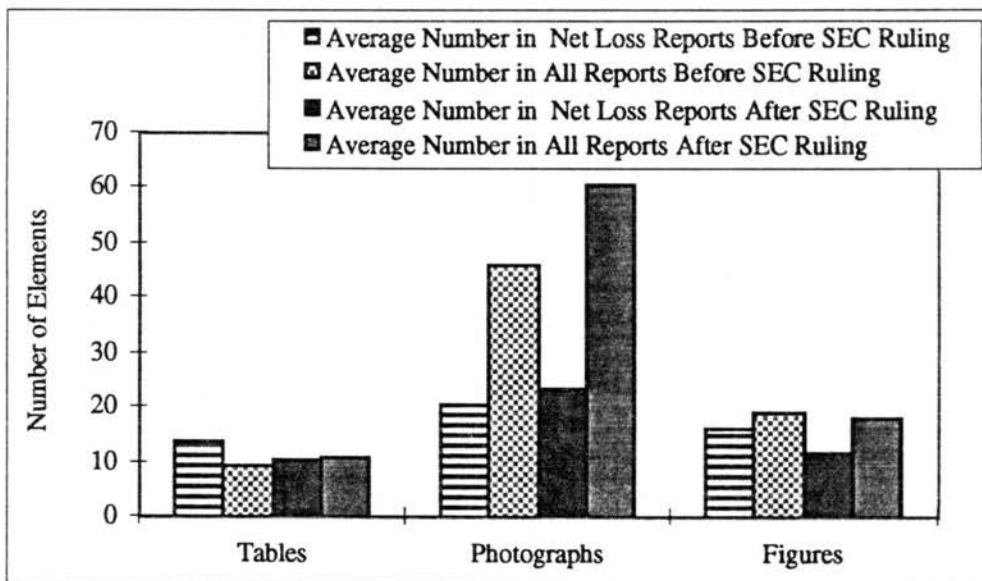


Figure 24. Average Number of Tables, Photographs, and Figures in Net Loss and All Reports Before and After the 1989 SEC Ruling

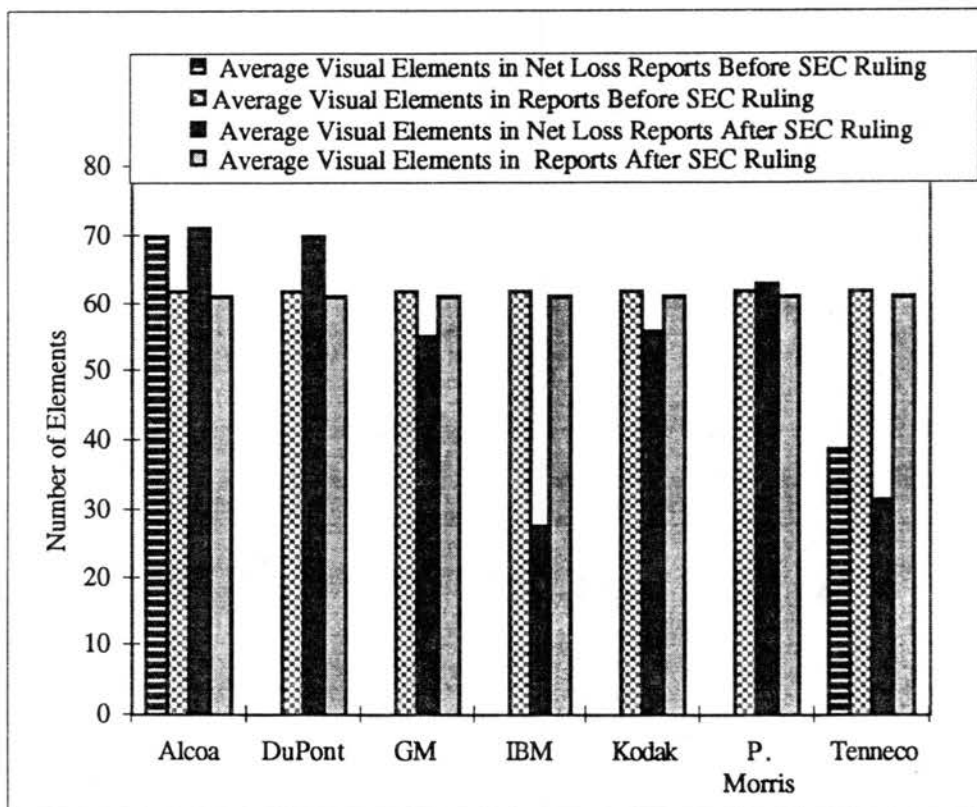


Figure 25. Average Visual Elements in Net Loss and All Reports by Company Before and After the 1989 SEC Ruling

Tables. As shown in Figure 27, the average number of tables increases in the net loss year reports after the 1989 SEC ruling (12.2 to 15.6), but not significantly based on Chi-square analysis ($p=.5$). Figure 28 shows that Alcoa, DuPont, GM and P. Morris have more tables in net loss year reports than is average for all reports. Likewise shown in Figure 28, of the two companies that experience net losses before and after the 1989 ruling, Alcoa follows this trend of more tables in net loss reports, but Tenneco uses fewer than is average for all reports. Examining individual companies' reports reveals that Alcoa, DuPont, P. Morris, and Tenneco use more tables in their net loss reports after 1989 than is average for the respective company (see Figure 29).

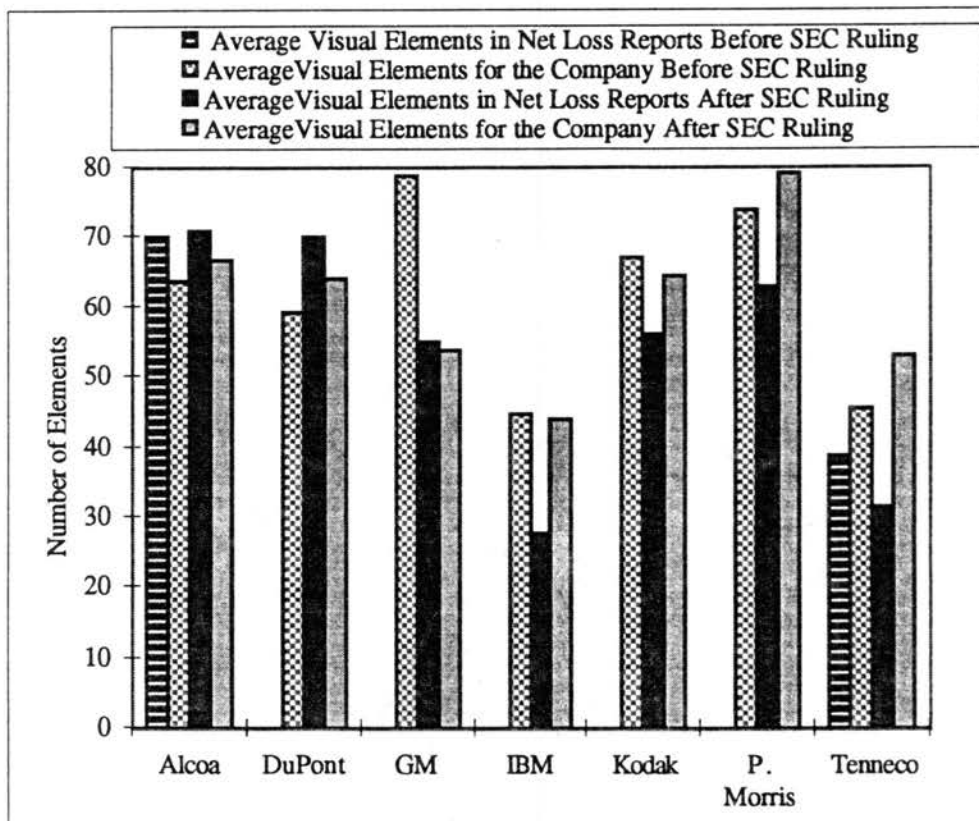


Figure 26. Average Number of Visual Elements Compared to Average Visual Elements for the Company Before and After the 1989 SEC Ruling

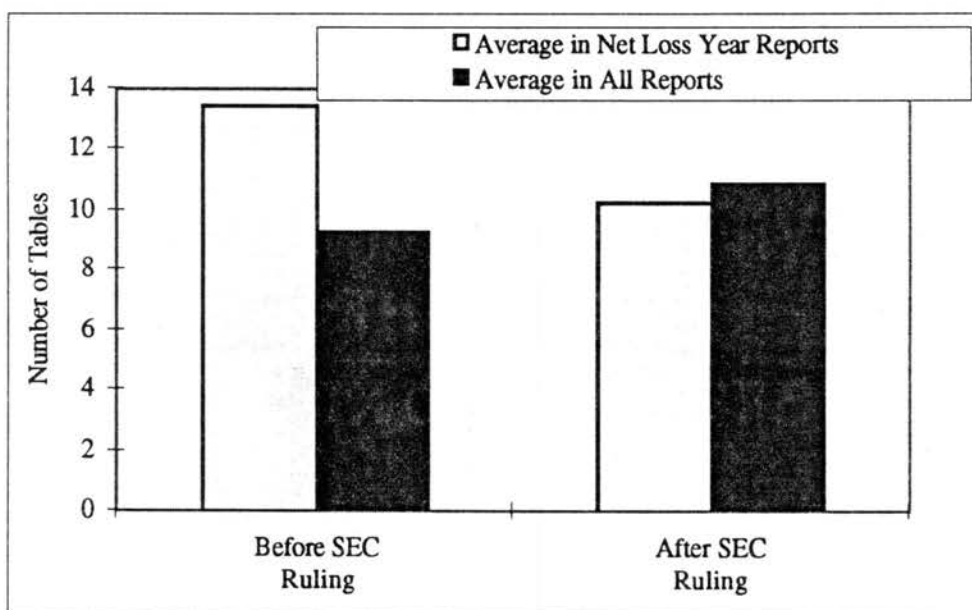


Figure 27. Average Number of Tables in Net Loss and All Reports Before and After the 1989 SEC Ruling

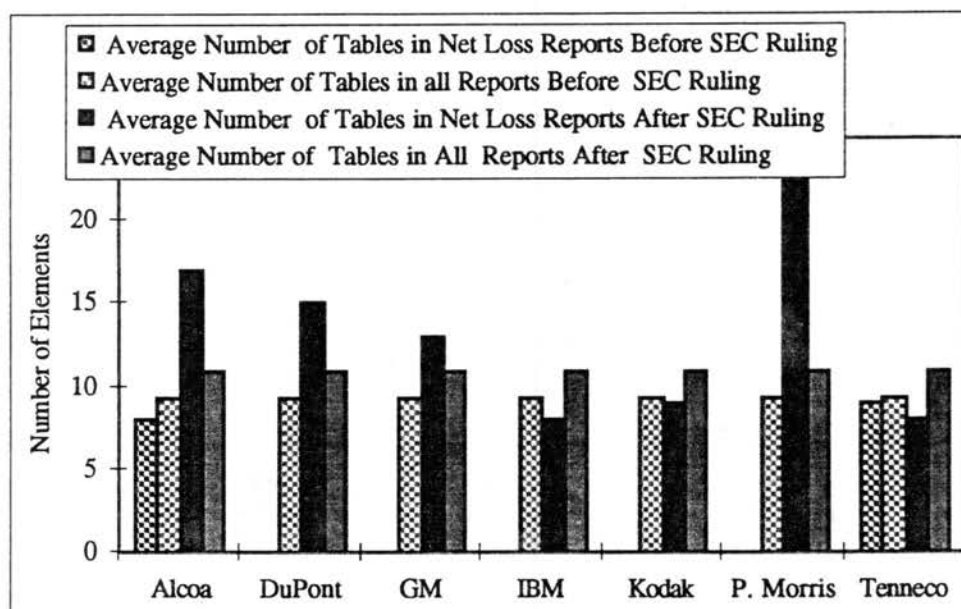


Figure 28. Average Number of Tables in Net Loss and All Reports by Company Before and After the 1989 SEC Ruling

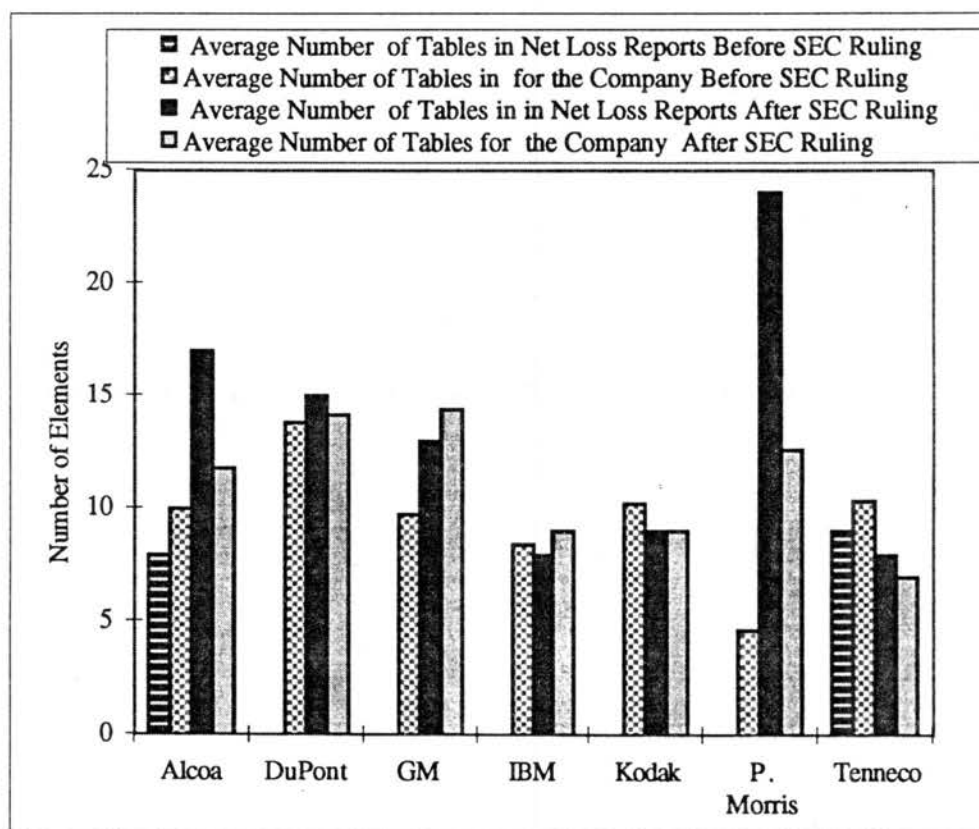


Figure 29. Average Number of Tables in Net Loss Years Compared to Average Number for the Individual Company Before and After the 1989 SEC Ruling

Photographs. The average number of photographs in net loss reports increase after 1989 (46.2 to 60.8) shown in Figure 29, but this change is not statistically significant based on Chi-square analysis ($p=.5$). All companies have fewer photographs in net loss reports after 1989 than is average for all reports (see Figure 31). Changes in individual companies' photographs vary more as shown in Figure 32. As shown in Figure 32, Alcoa, Dupont, and Kodak use more photographs in net loss year reports after 1989 than before, but their average number of photographs is still less than average for all reports of that period. GM is the only company in which the average number of photographs in net loss reports after 1989 is greater than its average of photographs for 1990-1994 (again, see Figure 32).

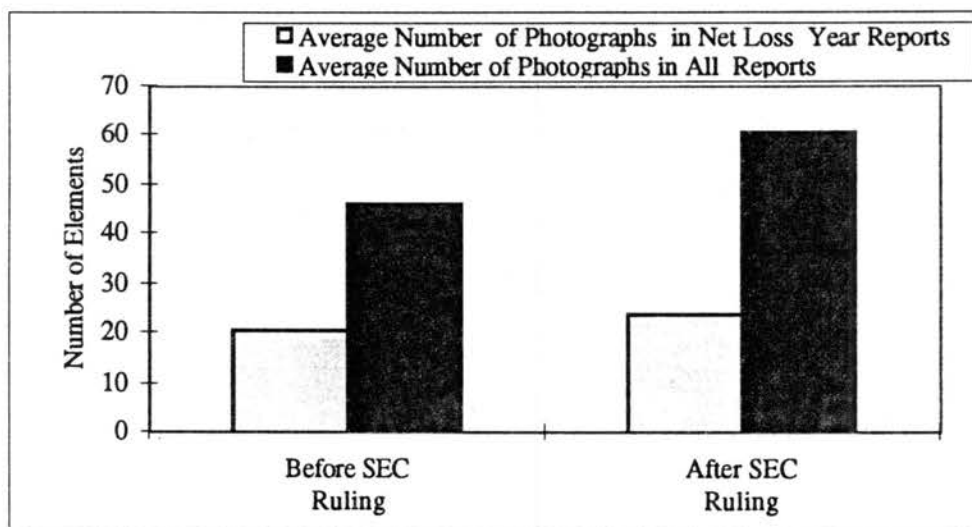


Figure 30. Average Number of Photographs in Net Loss and All Reports Before and After the 1989 SEC Ruling

Figures. As shown in Figure 33, the average number of figures in annual reports decreases after 1989 from 19.2 to 18.3, and Chi-square analysis indicates this decrease is not statistically significant ($p=.5$). Four of the seven companies (GM, IBM, Kodak, and P. Morris) use fewer visual elements in net loss than is average for all reports after 1989.

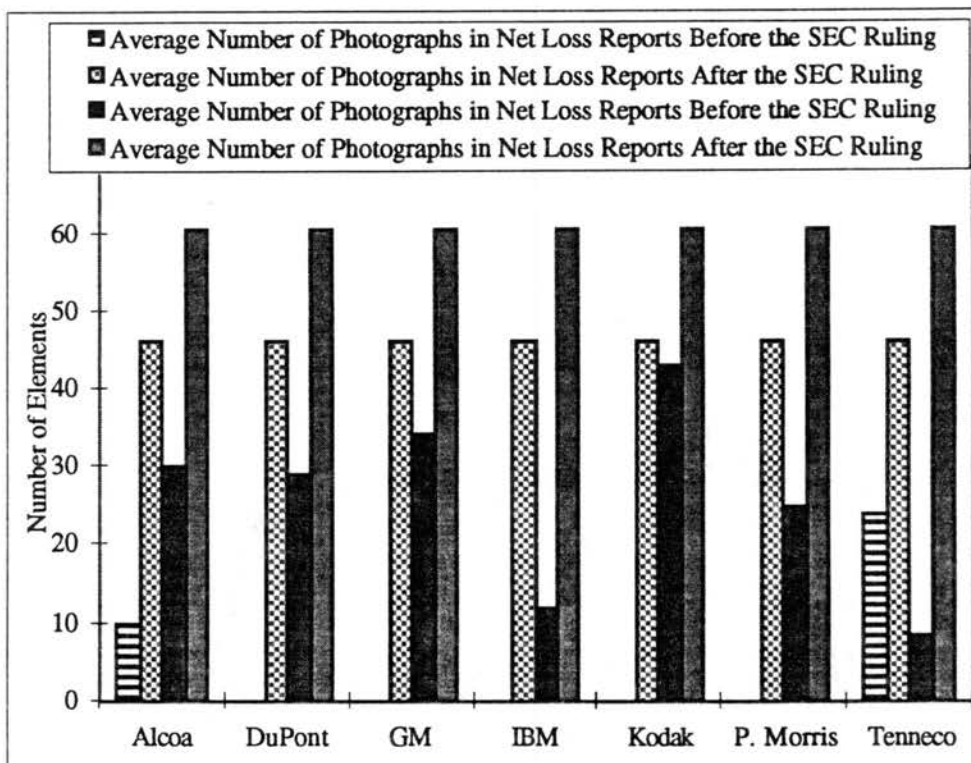


Figure 31. Average Number of Photographs in Net Loss and All Reports by Company Before and After the 1989 SEC Ruling

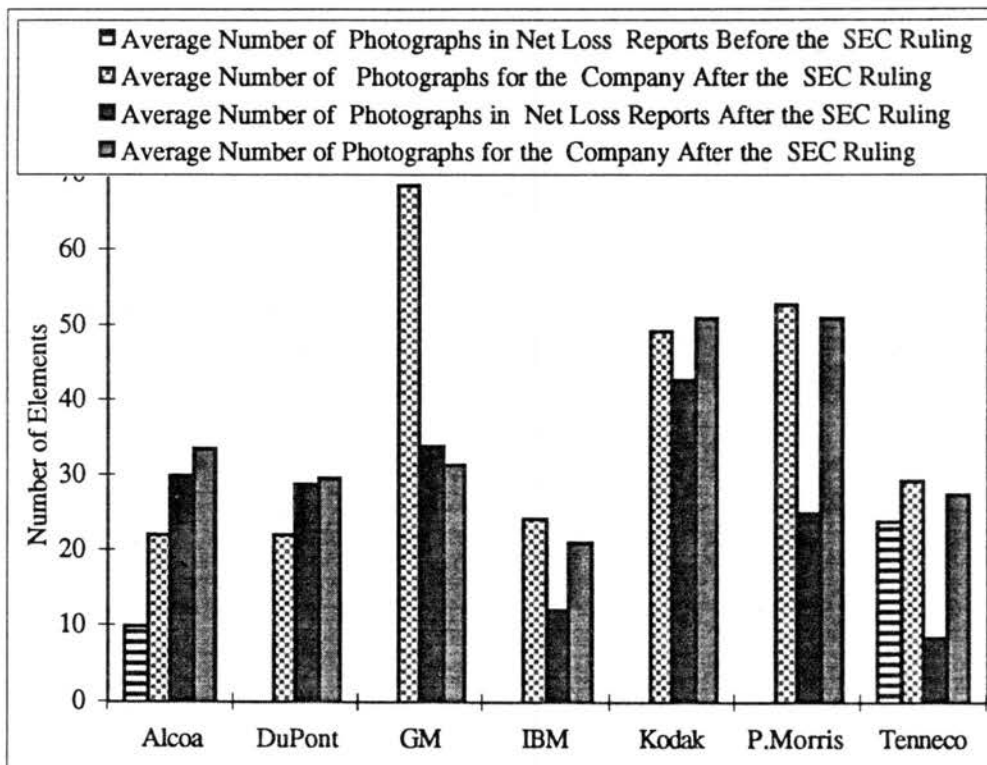


Figure 32. Average Number of Photographs in Net Loss Years Compared to Average Number for the Individual Company Before and After the 1989 SEC Ruling

Of the two companies with net losses before and after 1989, Alcoa's figures in net loss year reports after 1989 decrease approximately 50%. Tenneco, on the other hand, has more figures in net loss reports after 1989 than before, and it has slightly more figures than is average for all reports (see Figures 34 and 35). As shown in Figure 35, individual companies' reports reveal that only Alcoa and DuPont use more figures in net loss years after 1989 than is average for their respective companies. Likewise, only IBM and Tenneco show an increase in the average number of figures per company report after 1989. For the other five companies, overall use of figures decreases after 1989.

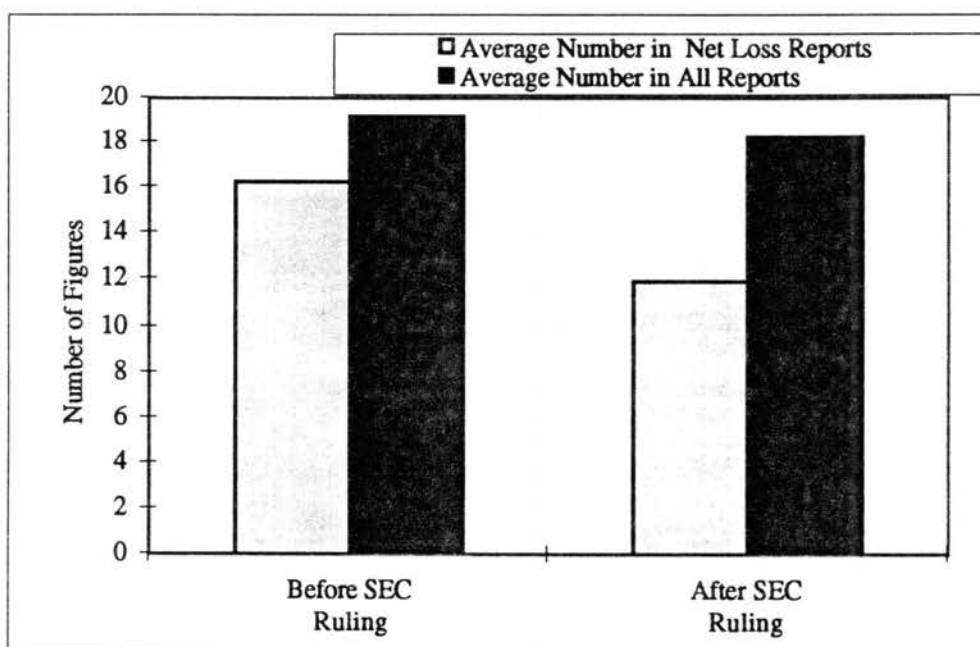


Figure 33. Average Number of Figures in Net Loss and All Reports Before and After the 1989 SEC Ruling

Changes in Individual Types of Figures After 1989

This trend of fewer figures extends to twelve of the individual types of figures in annual reports. Of the seventeen types of figures that appear in annual reports, only five appear *more* frequently in net loss reports after 1989 than is average for all reports for that period. As shown in Figure 36, 100% bar/column graphs and renderings appear more often in net loss reports after 1989 than is average for all reports for that period. The same

finding is true for bar graphs (see Figure 36), deviated bar/column graphs (see Figure 37), and surface graphs (see Figure 38).

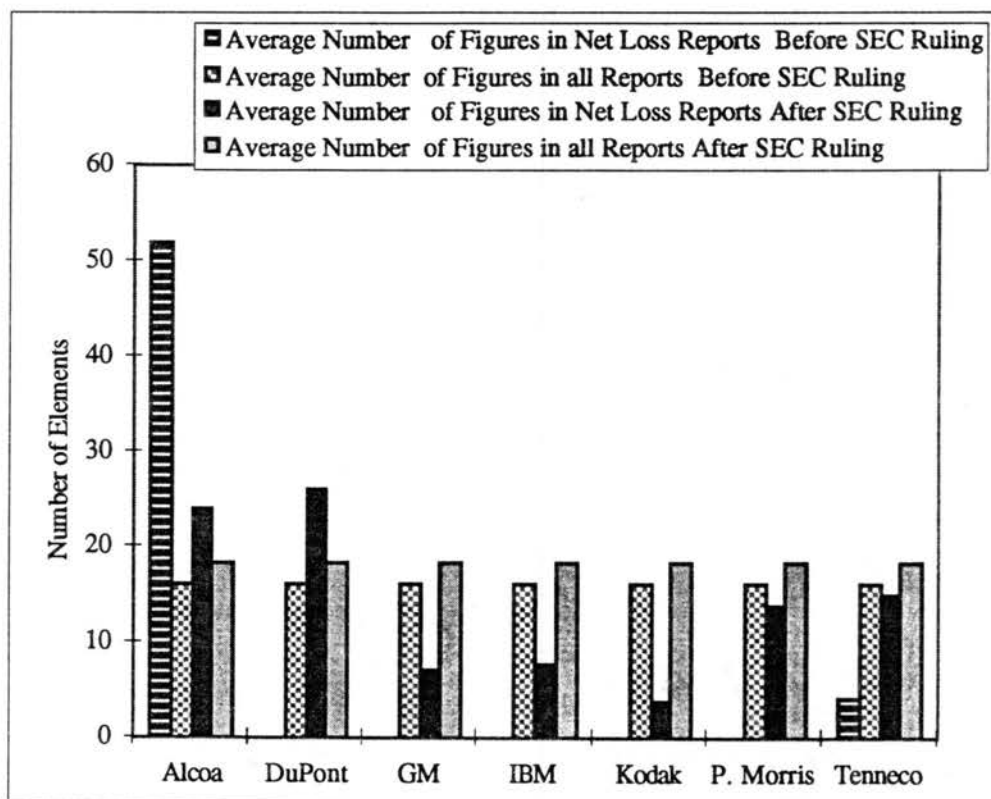


Figure 34. Average Number of Figures in Net Loss and All Reports by Company Before and After the 1989 SEC Ruling

Of the twelve types of figures that appear less frequently after 1989, the following are noted:

- (1) time lines appear in net loss reports only before 1989 (see Figure 35),
- (2) organization charts appear in net loss reports only after 1989 (Figure 35),
- (3) flow charts do not appear in net loss year reports (Figure 35),
- (4) line graphs do not appear in net loss reports after 1989 (Figure 36),
- (5) pictograms do not appear in net loss reports after 1989 (Figure 37),

(6) maps and logos appear in net loss reports only after 1989 (Figure 37)

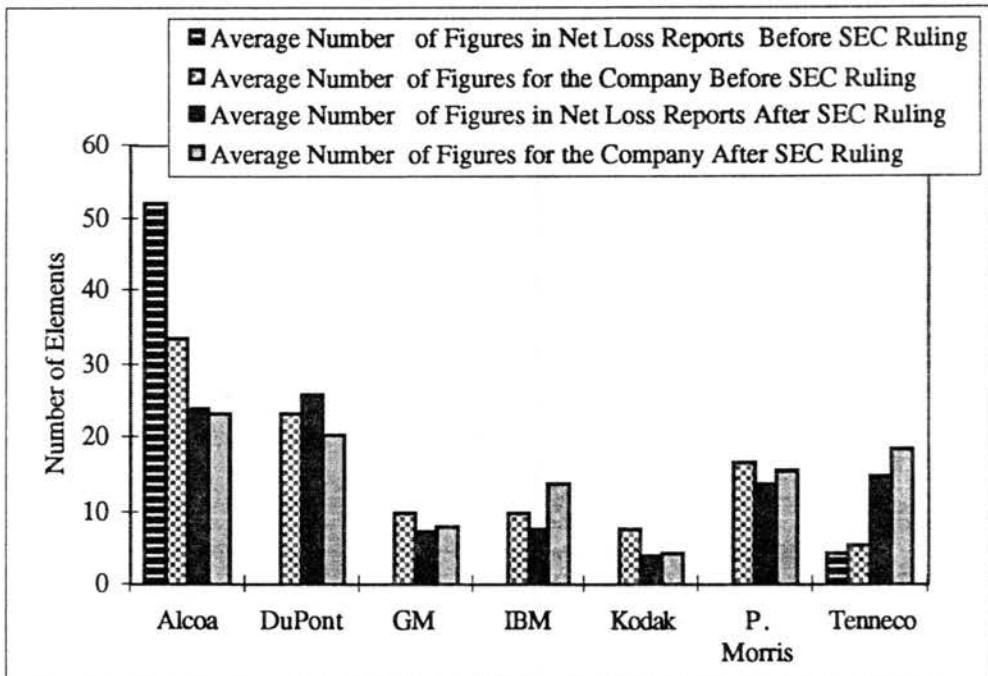


Figure 35. Average Number of Figures in Net Loss Years Compared to Average Number for the Individual Company Before and After the 1989 SEC Ruling

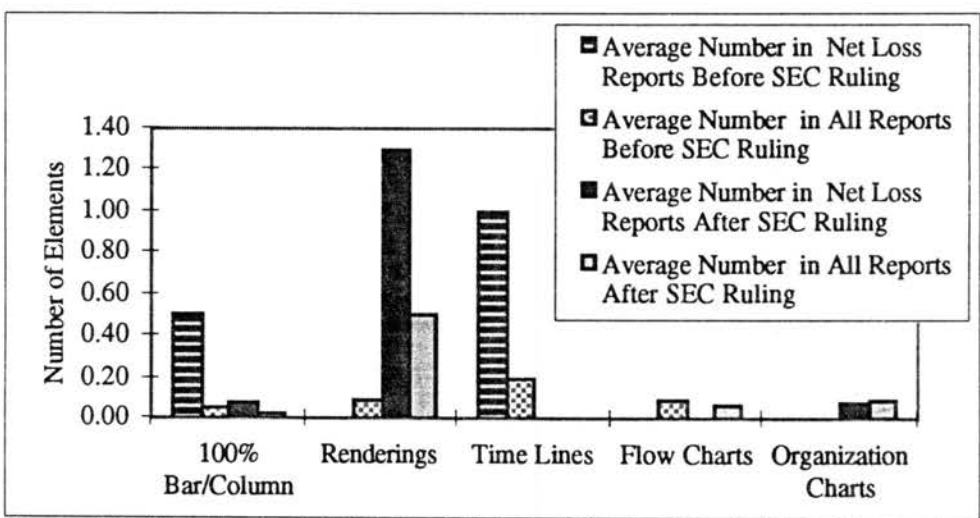


Figure 36. Numbers of 100% Bar/Column Graphs, Renderings, Time Lines, Flow Charts, and Organization Charts in Net Loss and All Reports Before and After the 1989 SEC Ruling

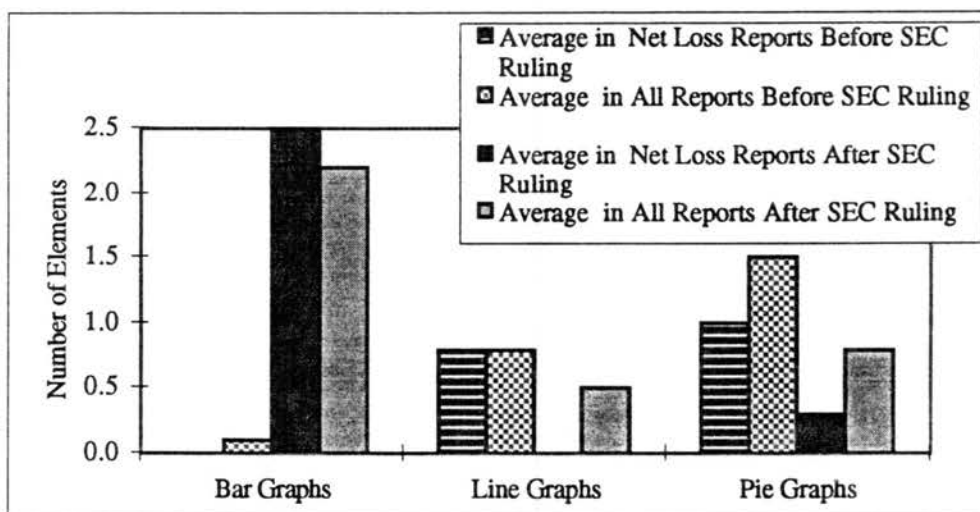


Figure 37. Number of Bar Graphs, Line Graphs, and Pie Graphs in Net Loss and All Reports Before and After the 1989 SEC Ruling

(7) pie graphs appear less in net loss year reports after 1989 than before (Figure 36),

(8) grouped bar/column graphs, divided bar/column graphs, and drawings appear less in net loss year reports after 1989 than before (Figure 38).

The most noticeable change is the decrease in the number of column graphs both in net loss reports and overall after 1989 (see Figure 39). This change is most noticeable because column graphs statistically appear more in reports of net loss than profit as reported earlier (see page 64).

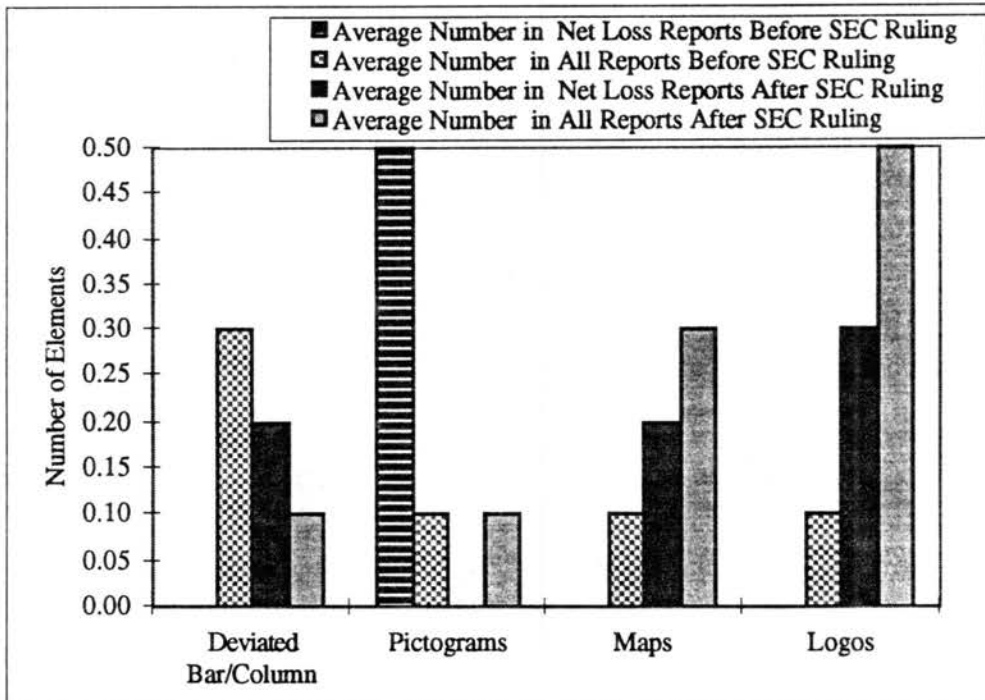


Figure 38. Number of Deviated Bar/ Column Graphs, Pictograms, Maps, and Logos in Net Loss and All Reports Before and After the 1989 SEC Ruling

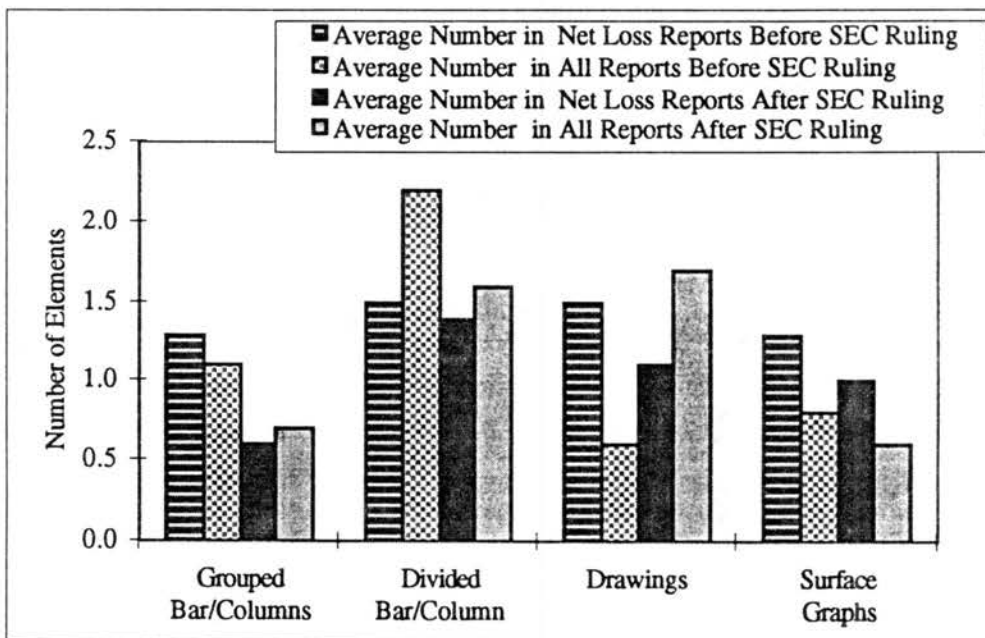


Figure 39. Number of Grouped Bar/ Column Graphs, Divided Bar/ Column Graphs, Drawings, Surface Graphs in Net Loss and All Reports Before and After the 1989 SEC Ruling

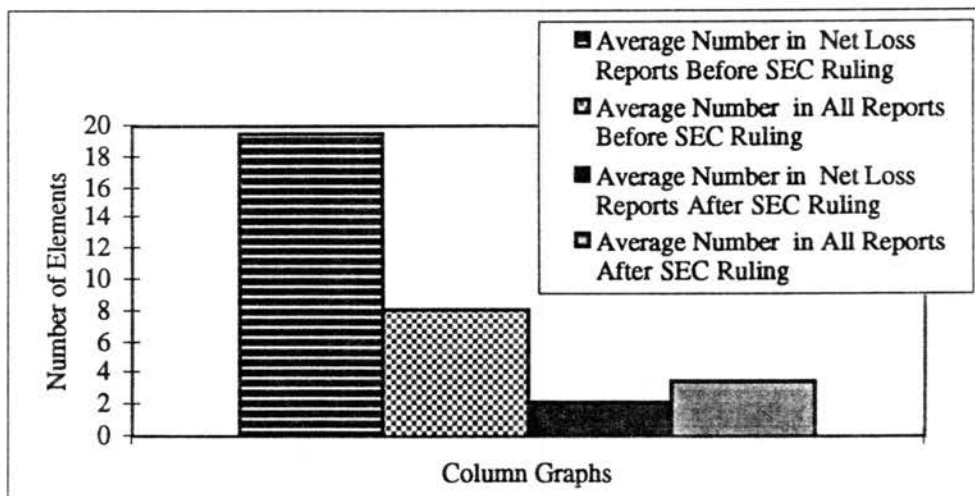


Figure 40. Number of Column Graphs in Net Loss and All Reports Before and After the 1989 SEC Ruling

Changes in Sizes of Photographs and Figures After 1989

Of the four noticeable changes in the sizes of photographs discussed earlier, all occur after the 1989 SEC ruling. However, as only four changes occur, the effect is negligible. Sizes of figures change slightly more than photographs, as presented earlier, and all changes occur after 1989 except Alcoa's smaller figures in the narrative (1985†).

Changes in the Subject Matter of Visual Elements After 1989

As discussed earlier, the subject matter of tables, photographs, and figures does not change noticeably in net loss years. Further, all but two of the changes take place after 1989. The two exceptions are Tenneco's 1986† report and Alcoa's 1985† report. Again, with so few changes, their effects are negligible.

Changes in Visual Elements Within the Annual Report Sections After 1989

Examining the four major sections of the annual report shows the effects of the SEC ruling on the numbers of visual elements per section and any changes that occur after 1989. Overall, the general effect is a decrease in visual elements after 1989, but this finding is not statistically significant ($p = .5$) (see Figure 41).

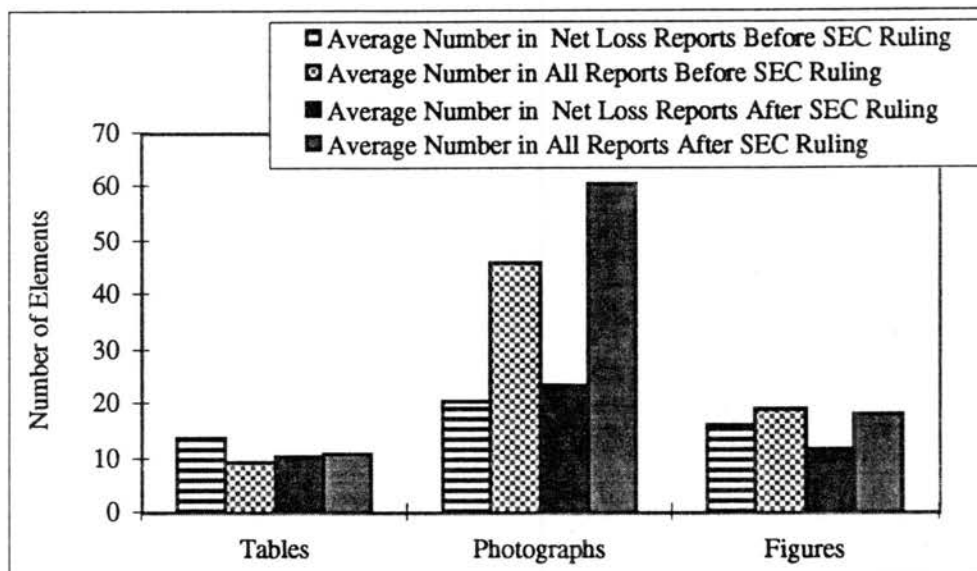


Figure 41. Average Number of Tables, Photographs, and Figures in Net Loss and All Reports Before and After the 1989 SEC Ruling

Financial Highlights. Of the three types of visual elements, photographs do not appear in net loss reports before 1989, and net loss reports after 1989 have fewer photographs than is average for all reports (see Figure 42). The average number of tables in all reports increases after 1989, and the number of tables in net loss years is greater than the average before and after 1989 (see Figure 42). Although the average number of figures in all reports increases after 1989, figures in net loss reports are still fewer than the average (see Figure 42). Chi square analysis finds no significant changes ($p = .85$).

Letter to Stockholders. As shown in Figure 43, the letter to the stockholders has tables only after the 1989 SEC ruling, and tables are used more frequently in reports of net loss than profit. Also shown is the change in the number of photographs in this section. Although net loss reports before 1989 had more photographs in this section than the average, after 1989 photographs decrease and are used less in net loss reports than is average for all reports. Although the overall average number of figures decreases after 1989, figures appear more frequently in net loss reports than is average for all reports both

before and after the SEC ruling (see Figure 43). Again, Chi square analysis yields no significant changes ($p = .3$).

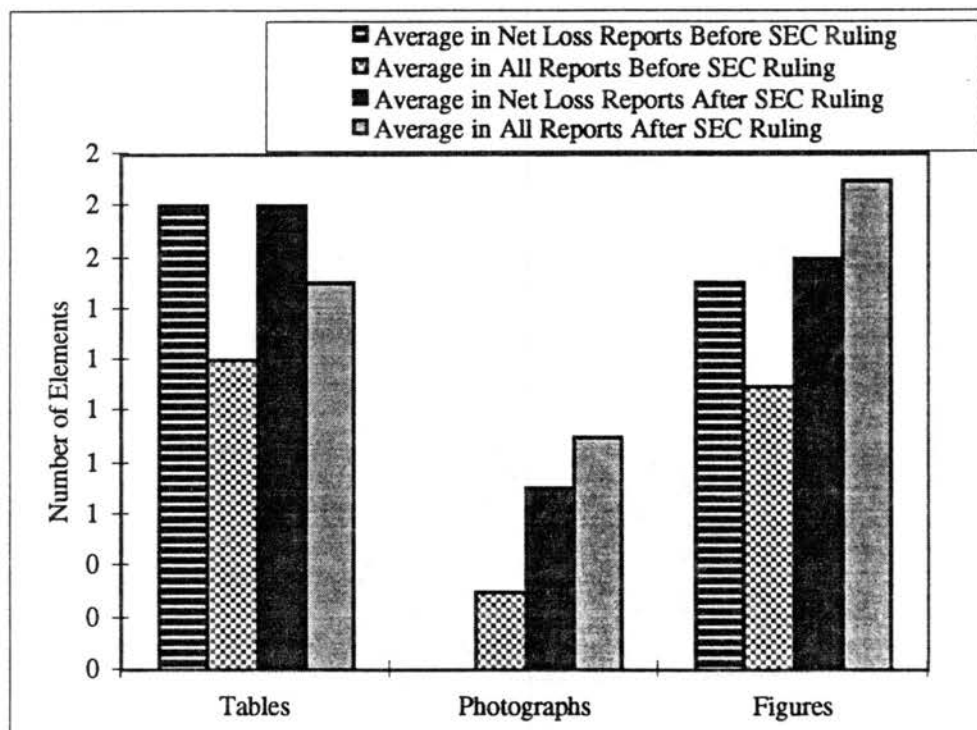


Figure 42. Number of Tables, Photographs, and Figures in the Financial Highlights Section Before and After the 1989 SEC Ruling

Narrative/Scope of Operations. In the narrative section of net loss reports, tables and figures appear less often than do photographs. Although the number of tables decreases slightly after 1989, the number of tables in net loss reports is greater than the average for all reports both before and after 1989 (see Figure 44). Conversely, as also shown in Figure 44, the average number of figures for all reports increases after 1989, but net loss reports have fewer figures than average both before and after the 1989 ruling. Average numbers of photographs, the most popular type of figure for this section, decrease slightly after 1989; however, the average number of photographs in net loss reports is approximately the same before and after the ruling (see Figure 44). Based on Chi square

analysis results, these findings are close to being statistically significant at the .05 level ($p = .06$).

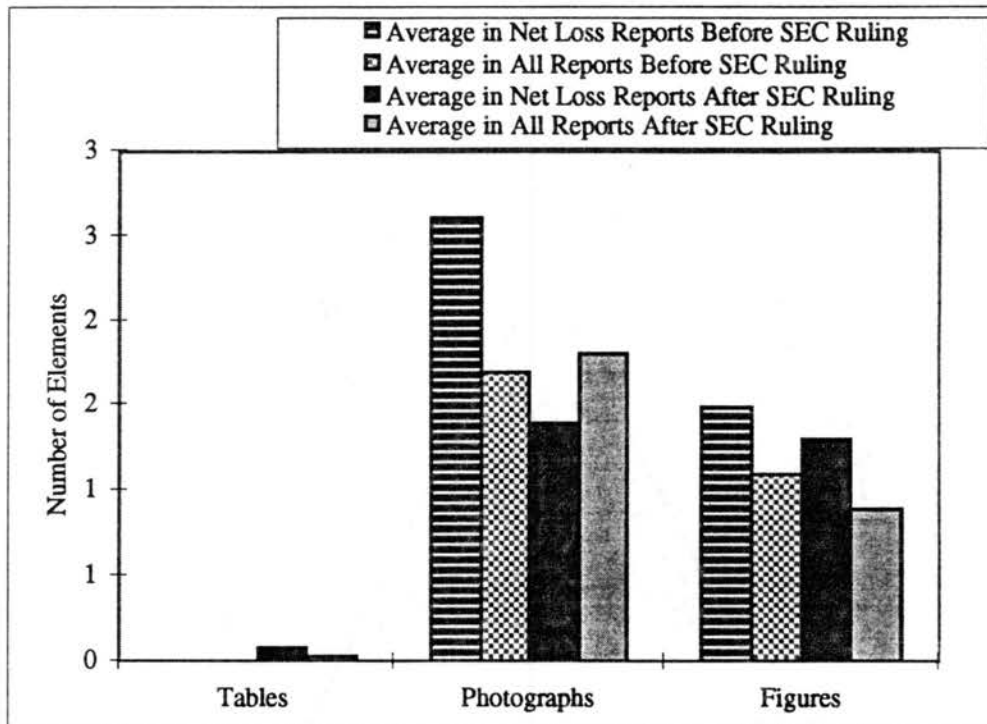


Figure 43. Number of Tables, Photographs, and Figures in the Letter to Stockholders in Net Loss and All Reports Before and After the 1989 SEC Ruling

Management's Discussion and Analysis. In this annual report section, photographs appear only in profit years and increase slightly after 1989 (see Figure 45). The average number of tables in all reports increases only slightly, and tables in net loss reports increase after 1989 but are still fewer than the average for all reports. In other words, the average number of tables in net loss years increases after 1989, but tables still appear less often in net loss reports than is average before and after 1989 (see Figure 45). Figures, on the other hand, change noticeably. The average number of figures in net loss reports decreases by over 50% after 1989. Moreover, the number of figures in net loss reports is fewer than average after 1989 but is greater than average for all reports before 1989 (see Figure 45).

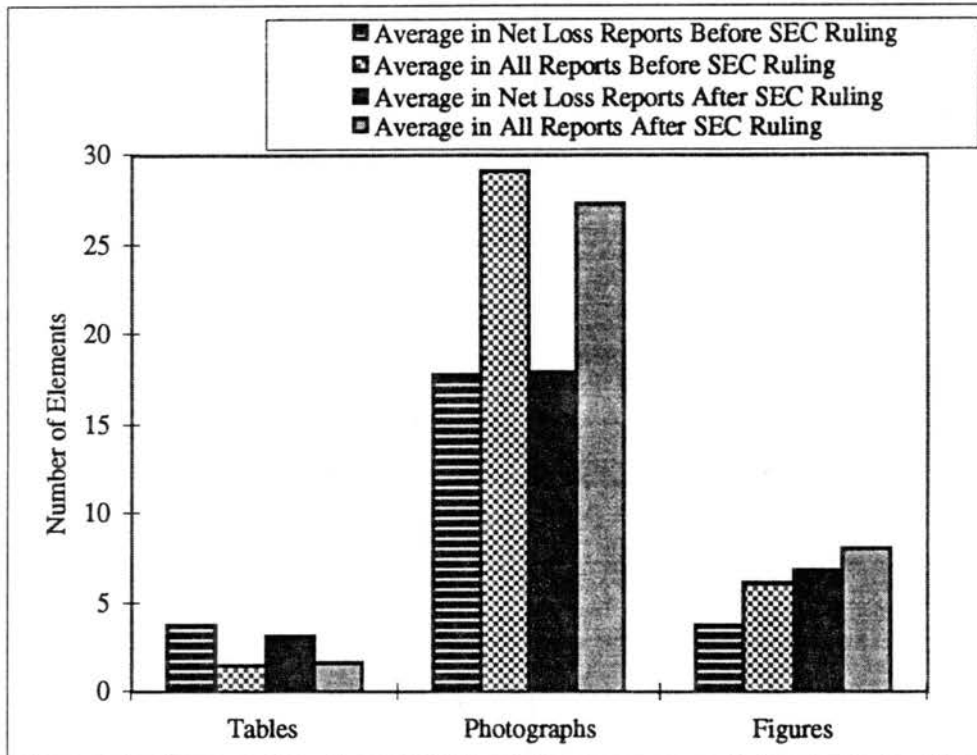


Figure 44. Average Number of Tables, Photographs, and Figures in the Narrative Section of Net Loss and All Reports Before and After the 1989 SEC Ruling

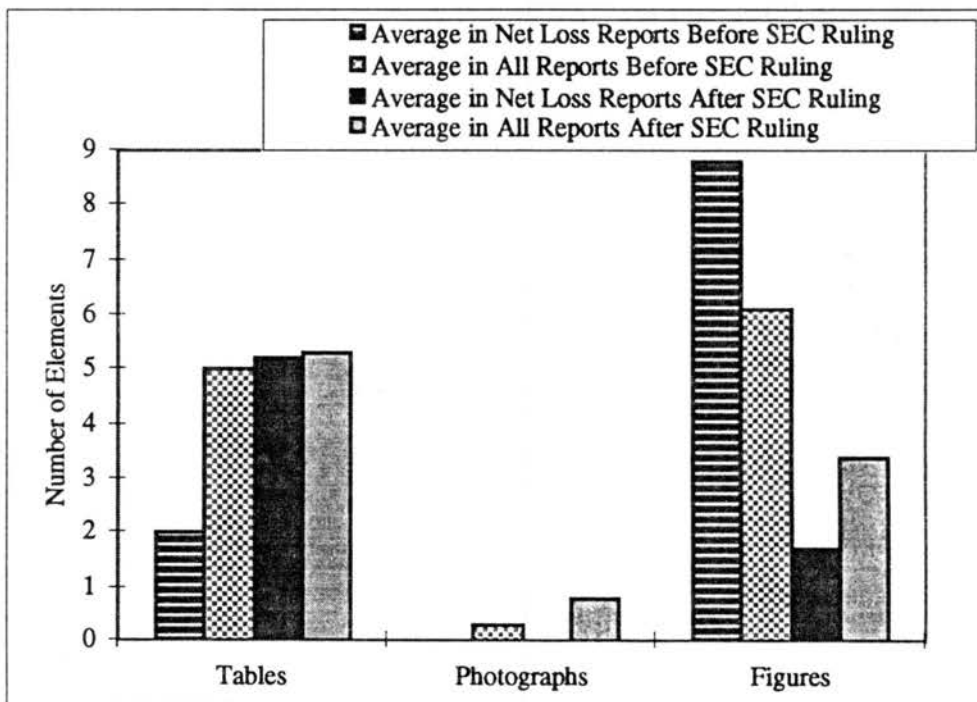


Figure 45. Number of Tables, Photographs, and Figures in the MD&A Section in Net Loss and All Reports Before and After the 1989 SEC Ruling

Of the seven companies with net losses, five of them had more graphics in the MD&A section of the annual reports before the SEC's mandate for improved disclosure: Alcoa, IBM, Kodak, Philip Morris, and Tenneco. DuPont and GM are the exceptions that have more graphic communication in MD&A after 1989, but for GM, the increase is in the number of photographs, and for DuPont photographs increase while figures decrease. Thus, graphic communication in net loss years does not increase after the 1989 SEC mandate.

Chapter Highlights

A quick look at the major findings of this dissertation will serve as a review before moving on to the discussion.

Graphic Communication in Net Loss Reports. Of the eleven characteristics examined, six that demonstrate negligible change during years of net loss are typography, layout, references, captions, integrity of graphical elements, and colors used. Of the sixteen net loss years, ten reports have fewer visual elements than the yearly average for the seven companies reports, and thirteen reports have fewer graphics per year than the company average for the ten years examined. Of the seven companies Alcoa, DuPont, and Philip Morris stand out as they use more visual elements in net loss reports than in profitable reports. The numbers of photographs and figures individually reflect decreases in net loss years, but the numbers of tables increase. Of the individual types, only column graphs and divided bar/column graphs appear more frequently in some companies' net loss reports than is average for all reports. Subject matter varies more for figures than it does for tables and photographs, and sizes of figures change more in net loss reports than do sizes of photographs. Of the four major report sections, tables, photographs, and figures appear less often in reports of net loss than profit.

SEC Guidelines and Their Effect on Annual Reports. Of the six elements examined that demonstrate negligible changes, (typography, layout, references

and introductions, captions, graphical integrity, and annual report colors) any changes that do occur are after the 1989 SEC ruling. The overall trend in graphic communication in years following the 1989 SEC mandate is a decrease in the average number of visual elements in net loss reports. However, Alcoa, DuPont, and Philip Morris stand out as they use more visual elements in net loss reports than in profitable reports both before and after the 1989 SEC ruling. The number of tables increases, but the number of photographs and figures decrease. Of the seventeen individual types of figures in annual reports, only five show an increased use in net loss reports after 1989 (100% bar/column graphs, renderings, bar graphs, deviated bar/column graphs, and surface graphs). Negligible changes are found in sizes of photographs and figures and changes in the subject matter of tables, photographs, and figures. The primary change in the graphic communication in the various annual reports sections of net loss reports after 1989 occurs in the narrative or scope of operations.

Analysis and discussion of these findings follow in the next chapter.

CHAPTER 5

DISCUSSION OF FINDINGS

The discussion of the findings related to the different uses of visual elements in corporate annual reports during net loss years will focus on the two primary hypotheses:

- (1) net losses do not cause decreases in the graphic communication in annual reports and
- (2) the 1989 SEC mandate does not cause increases in the graphic communication in net loss year annual reports.

This discussion contains six sections for each hypothesis:

- (1) elements that demonstrate no significant changes in net loss year reports,
- (2) changes in numbers of visual elements,
- (3) changes in the types of individual figures used,
- (4) changes in sizes of photographs and figures,
- (5) changes in the subject matter of visual elements, and
- (6) changes in the placement within the report of the visual elements.

Net Losses Do Not Change Six Characteristics

As reported in the previous chapter, six of the characteristics investigated have no changes in net loss years. These are typography, layout or placement of the visual element on the page, introductions or references to visuals, captions, graphical integrity, and colors. Of the six elements with no changes in net loss years, five are used in ways

keeping with the published standard guidelines for document design and are summarize below; but the sixth presents a problem area.

Typography in annual reports of net loss years does not change from reports during years of profit. Typography is consistent within a report with a minimum of different features. Many reports are in a serif typeface such as Times, a sans serif such as Helvetica, or a combination of the two with serif most often used for the text and sans serif for headings and visual elements.

Placement on the page is varied but with some pattern of organization within the various sections of the reports. Some companies' annual reports have a consistency of layout from one to the next, helping readers remember where to find certain types of information. For example, several companies place the financial highlights table at the top of the page with related figures at the bottom. As the financial highlights section appears yearly and is usually first in the report, knowing where to look on the page benefits the reader.

Captions, graphic integrity, and colors are other elements that also present few or no problems. Captions or titles of visual elements are descriptive and informative, leading the reader to the focal point. Graphic integrity is very high with only a few instances of information being omitted, usually from a figure. The most common problem is omitting percentages from pie graphs and exact numbers on bars/columns when presenting numbers in the millions. Colors are often bright, attractive, and useful for helping compare various aspects of the figures in which they are used. Perhaps one of the more interesting uses of color was in GM's 1990-1992[†] reports and DuPont's 1992[†] reports. For GM and DuPont, the primary color other than black was blue, giving the reader the impression of a "bruised" company.

[†] The "†" symbol indicates net loss year reports throughout this chapter.

The sixth and most problematic characteristic investigated in these reports is the almost complete omission of any introductions or references to the visual elements included. Although the captions help readers identify the important points, readers are left on their own to determine the relationships between text and visuals. Thus, these annual reports go directly against one of the most commonly agreed upon guidelines for integrating text and graphics, and these omissions lead one to doubt a company's intentions in placing the visuals in the report. This finding can certainly reinforce Paulson's (1988) assertion that the visual elements are to distract the readers' attention away from the bad news in the prose and financial statements. Moving from these six elements, discussion will focus on differences in annual reports during net loss years that are more prevalent.

Changes in Numbers of Visual Elements

The most obvious and overwhelming change in how visual elements are used in net loss reports is in the numbers of visuals appearing in the net loss year reports. Just short of being unanimous, most reports contain fewer total visual elements, and each of the three categories (tables, photographs, and figures) likewise reflect less use of visuals in bad financial years, although this finding is not statistically significant. These reports contained fewer tables, fewer photographs, and fewer figures in 81% of the net loss reports. To understand all the aspects involved in the financial losses, one would expect to find *more* visuals rather than fewer because readers need to understand what problems led to the financial downfall, and graphic communication can help readers understand complex relationships, make comparisons, and remember information that will enable them to make informed investment decisions as discussed in Chapter 2. Additionally, more graphic communication can help readers "picture" how the company plans for profitability in the future. More visuals will certainly be useful in showing the future projections for

improvement as they are most useful in reflecting management's goals (Rooney and Evans, 1983).

Only Alcoa, DuPont, and Philip Morris have more visual elements than is average for all reports in net loss years, and only Alcoa and DuPont have more visual elements in net loss reports than is average for their respective companies. Because these three companies average more graphic communication in net loss years than in profitable ones, their reports indicate that they use more graphic communication to help readers better understand complex information, a concept supported by the literature. The other four companies consistently have fewer visual elements in net loss years than profitable ones and thus are less concerned with their readers being able to understand what caused the loss, and perhaps more important, what the forecast for the future is. Of the three types of visual elements, tables increase while photographs, and figures decrease.

Tables. Even though the average number of visual elements decreases in net loss year reports, the average number of tables increases. Four of the seven companies (Alcoa, DuPont, GM, and P. Morris) have more tables in net loss year reports than is average for all reports; however, only three have more tables than is average for the individual companies. The four companies that provide additional information in additional tables in net loss years help reader understand the financial aspects related to the loss. Although GM has more tables in net loss years than is average for all reports, it does not have consistently more tables than is average for the company in years of net loss. GM, then, makes a smaller effort than the previous four companies in explaining losses to their readers. Other companies that go against the trend of more tables in net loss years are IBM, Kodak, and Tenneco; they make no additional effort to help their readers. By using more tables, companies can provide information to help readers decipher the financial issues; however, readers must sometimes work harder to find the information in a table than they might if it were in a figure.

Photographs. The average number of photographs declines in reports of net loss, and all seven companies have fewer photographs in their net loss reports than is average for all reports. Only DuPont has more photographs in its net loss reports than is average for the company, but it does have fewer photographs in net loss reports than is average for all reports. Consequently, these companies must believe that photographs are not very useful in helping to explain net losses or forecasts for the future.

Figures. The average number of figures in net loss reports follows the trend of photographs; the average number of figures declines. Five of the seven companies have fewer figures than is average for all reports, and Alcoa and DuPont are the two exceptions. These two companies also have more figures in net loss reports than is average for the individual companies; thus, they are the only companies who attempt to help readers by including additional figures. As this decrease in the number of figures in net loss reports is statistically significant at the .05 level, the other five companies appear to have deliberately used fewer figures when net losses occurred, making no effort to help readers understand the loss. Changes in the individual types of figures appearing in net loss reports also occur as discussed in the next section.

Changes in the Types of Individual Figures Used

Annual reports of both good news and bad incorporate a variety of figures. The five most popular figures in all reports in decreasing order of popularity are

- (1) column graphs (40%),
- (2) divided bar/column graphs (13%),
- (3) bar graphs (7%),
- (4) grouped bar/column graphs (6%), and
- (5) surface graphs (5%).

The five most popular figures in net loss reports, again in decreasing order, are

- (1) column graphs,
- (2) bar graphs,
- (3) divided bar/column graphs,
- (4) drawings, and
- (5) renderings.

Of the five most popular figures, each occurs in profitable years as well as unprofitable ones. Because each of these five figures appears at least 200% more often in profitable years than in net loss years, companies are omitting the usual column graphs from net loss reports, leaving readers working harder, if indeed readers will make the effort, to understand the companies' financial situation. Because column graphs appear 634 times in the 100 reports examined, but only 103 times in net loss reports, readers are left with much less graphic information to help them interpret the company's financial situation. This large drop in the number of individual figures appearing in net loss reports also applies to the following:

- (1) divided columns appear 317 times with 23 in loss years and
- (2) bar graphs appear 112 times with 12 in loss years.

By using so few graphical figures in net loss reports, companies leave readers with a much more difficult task in analyzing the financial condition.

Of the reports studied, all but the five figures discussed above are used less in reports of net losses. And although it is true that a company might use one type of figure only in net loss years, other companies use the same figures in good and bad years. Flow charts do not appear in net loss reports although they do appear in reports of profit; this finding implies that companies have processes that readers need to understand only in years of profit and leaves one to wonder what companies are omitting in the net loss years. Because deviated bar/column graphs all but disappear in net loss reports, companies are avoiding the very graphic that shows negatives most effectively. In contrast, 100% bar/

column graphs appear only in reports of net loss; here companies are using a graphic figure, but one that most reader will interpret far less accurately because 100% bar/column graphs rely on shading and color saturation, the least accurate perceptual task. Each of the following appears less than five times in the sixteen net loss reports examined: organization charts, pictograms, maps, 100% bar/column graphs, line graphs, and time lines, all figures that companies deem to be useful in profitable years. Pie graphs, logos, grouped bar/column graphs, surface graphs, and renderings each appear fifteen or fewer times in net loss reports while drawings appear twenty times, divided bar/column graphs appear twenty-three times, and bar graphs appear thirty times. Again, companies are leaving out some of the most useful types of graphics for helping readers analyze financial information, the very graphics they use generously in reports of profit.

Although the total number of column graphs in all reports is much greater than the total number in net loss reports, column graphs appear statistically more often in net loss reports than the average for profitable reports ($p=.003$). Thus, column graphs are the only figure that companies find more useful in reports of net loss than profit, and these are particularly effective for readers because column graphs are one of the most accurate perceptual tasks. Alcoa and Tenneco use noticeably more column graphs in their net loss reports than do the other five companies.

Other figures that appear only in net loss reports of one or two companies as opposed to all companies' net loss reports are 100% bar/column graphs (Alcoa and GM) which are difficult to interpret, logos (GM and P. Morris) which are not useful for financial data; line graphs, pie graphs, and pictograms (Alcoa) which are useful for financial data, maps (IBM) which are useful for showing a companies plans for expansion or downsizing, drawings (IBM and Tenneco) which are useful for showing potential new products, equipment, or facilities; surface graphs (Alcoa and Tenneco) which are difficult to interpret; and bar graphs (DuPont and Tenneco) which are one of the easiest to interpret. Because

Alcoa is one of the companies that has more figures in net loss reports than is average for all reports, finding that they use a wide variety of figures in net loss years is not surprising.

Changes in Sizes of Photographs and Figures

Although the sizes of photographs and figures are different in some of the net loss year reports, the changes in size relate to an individual section within a report, not to the report as a whole. The differences are consistently inconsistent; they vary from section to section and report to report with no apparent pattern. Thus, size does not change as a result of a net loss. Smaller photographs or figures in the narrative section might appear for one net loss year and may not be seen in the same company's reports for other losses. IBM, for example, used smaller figures in the MD&A sections of the 1991† and 1992† report, but not in 1993†. For the changes in photographs, the usual change in net loss years is a larger size such as found in Alcoa for 1992† and Philip Morris in 1993†. This change in size was not consistent as Alcoa's 1985† report has the usual sizes of figures and photographs. These inconsistencies indicate that the changes in sizes of photographs and figures are irrelevant in determining if net losses cause changes in graphic communication in annual reports. An analysis of the changes in subject matter is much the same.

Changes in the Subject Matter of Visual Elements

The subject matter of tables and photographs varies little from good news to bad news years. A few companies include tables or photographs on topics not found in other years, but these changes do not adversely affect the overall reporting of the financial condition unless a company omits financial information. Companies sometimes focus more on products, market shares, and general overviews in tables and photographs rather than the financial losses incurred.

Although changes in the use of figures are more prevalent than changes in the use of tables and photographs, the figures generally convey some relevant information about

the company and its financial condition. Alcoa's aluminum developments, product indexes, and dollar exchanges in 1985 help to analyze where the company has been and how the current market is affecting operations. What these figures do not show, however, is how these factors influence the company's future financial status, information that readers most surely want. These findings about how the subjects of figures differ in net loss years apply to the other companies with net losses such as Kodak and Philip Morris; the information is relevant, but it does not necessarily answer the readers' question of "what will happen next year." Again, as with the minor changes in sizes of photographs and figures, the relatively minor differences in subjects of visual elements in net loss year reports indicate that subject matter is irrelevant in determining if net losses cause changes in graphic communication in annual reports. The exception, of course, is the omission of necessary financial data with which readers analyze future prospects for profits.

Changes in Visual Placements Within the Annual Report Sections

Of the four annual report sections examined, only one had a significant number of differences in the numbers of visual elements in net loss years: narrative or scope of operations. For the narrative section, tables and figures appear less often in annual reports of net loss. For the financial highlights, letter to stockholders, and MD&A sections, no significant changes appear. Tables and figures appear more often than photographs in the financial highlights section of net loss reports while photographs appear more often than tables and figures in the letter to stockholders. In the MD&A section, tables and figures appear in net loss years, but photographs do not appear in reports of net loss.

Elements Unchanged by the 1989 SEC Ruling

As presented in chapter 3, six elements have negligible changes in reports of net loss: typography, layout or placement of the visual element on the page, introductions and references to visuals, captions, graphical integrity, and colors. Although the changes that

do occur are after the 1989 SEC ruling, the changes have no discernible effects on the presentation of the companies' financial condition. The problem of omitting introductions and references to visual elements changes only slightly after 1989. The introductions and references to visual elements in net loss reports that do occur appear in net loss reports only after 1989, but still these references and introductions may appear in only one section of the report, or only to certain visuals. No identifiable consistency in references to visual elements occurs after 1989; thus, references and introductions to graphic communication are negligible in determining how the SEC ruling effects net loss report.

Changes in Numbers of Visual Elements After 1989

Because the average number of visual elements in net loss reports decreases after the 1989 SEC Ruling, as does the average number of visual elements in all reports, the ruling did not increase the use of graphic communication. However, not all seven companies follow this trend; after 1989 Alcoa has more visual elements in net loss reports than is average for all reports and has more visual elements in net loss reports than is average for the company. As seen before, Alcoa uses more visual elements to help readers understand losses. Although DuPont and GM have more visual elements in net loss reports than is average for all reports after 1989, they have no net loss years prior to 1989 for comparison. This finding is not statistically significant, and the same is true for findings on tables, photographs, and figures.

Tables. The average number of tables in net loss reports increases after 1989, and tables now appear more often in net loss reports than is average for all reports whereas before 1989, tables appear less in loss reports than is average for all reports. Thus, companies are using tables more often in net loss years to help their readers now than they did before 1989. Only IBM, Kodak, and Tenneco do not follow the trend of more tables in net loss reports than in profitable ones after 1989. As seen before, these three companies

reports reflect that these companies are less interested than the others in helping their readers. However, for Tenneco, the average number of tables in net loss reports now exceeds its average use of tables for that period. GM and IBM have fewer tables in net loss reports after 1989 than is average for their respective companies from 1990-1994.

Photographs. The average number of photographs in net loss reports increases slightly after 1989, but photographs still appear less frequently in net loss reports than is average for all reports. All of the seven companies use fewer photographs in loss reports than is average for all reports, and only GM has more photographs in net loss reports after 1989 than is average for the company. Although the overall number of photographs increases after 1989, companies still do not rely much on them to help readers analyze losses.

Figures. The average number of figures in annual reports decreases after 1989, and the average number of figures in net loss reports is still less than the average for all reports. Companies are using figures less after the 1989 SEC ruling to explain their losses and relying more on tables. Only Alcoa and DuPont have more figures in net loss reports after 1989 than is average for all reports; likewise, Alcoa and DuPont have more figures in their net loss reports after 1989 than is average for their individual companies. However, for Alcoa the total number of figures in net loss reports decreases after 1989; instead of using more figures to disclose financial information about the company, Alcoa is now using less. As the average number of figures declines in net loss reports after 1989, twelve of the seventeen individual types of figures also decline after 1989.

Changes in Individual Types of Figures After 1989

Of the seventeen figures appearing in net loss reports, twelve appear less frequently in net loss reports after 1989 than before 1989; companies are omitting more of graphics that help readers than before. Of the remaining five, 100% bar/column graphs, bar graphs,

deviated bar/column graphs, surface graphs, and renderings appear more often in reports of net loss than in ones of profit after 1989. With the increased number of bar graphs and deviated bar/column graphs, companies are making a greater effort to help readers interpret financial data because these two rely on the most accurate of perceptual tasks, comparing positions along a common scale. However, 100% bar/column graphs and surface graphs rely on less accurate perceptual tasks of comparing color saturation and shading as well as area. Of these five, only renderings, which appear only in net loss reports after 1989, do not help readers analyze financial matter, but perhaps show concepts of future products or facilities that companies project will help to improve the company's financial position. The most noticeable changes are the decrease in the total number of column graphs in net loss reports after 1989 and the switch from being used more than is average in net loss reports to less than is average for net loss reports after 1989. Companies are not only using fewer column graphs in net loss reports after 1989, they are also using fewer overall. As column graphs are one of the most used figures in annual reports and the most accurate perceptual tasks for readers, this decrease indicates that companies do not want to help readers understand net losses.

Changes in Sizes of Photographs and Figures After 1989

As reported in the previous chapter, the noticeable changes in the sizes of photographs and figures occur after 1989 with the exception of Alcoa's 1985† reports. With so few changes, with none consistent within entire reports, and none consistent among reports, the changes in this characteristic are negligible.

Changes in Subject Matter of Visual Elements After 1989

Similar to sizes, all noticeable changes in subject matter in net loss annual reports occur after 1989 with the two exceptions of Alcoa's 1985† and Tenneco's 1986† reports.

The changes after 1989 are minor; thus, those changes render this characteristic negligible in determining the effects of the 1989 SEC ruling on net loss annual reports.

Changes in Visual Elements Within Annual Report Sections After 1989

Three of the four annual report sections follow the overall trend of fewer visual elements in net loss year reports after 1989. The financial highlights section has photographs after 1989 whereas before 1989 no photographs appear in this section. Although companies are adding photographs to a section that summarizes financial data, the literature does not support using photographs for such summaries. These findings are not significant ($p = .8$).

In the letters to stockholders in net loss reports after 1989, tables now appear and appear with more frequency in net loss reports than is average for all reports after 1989. With this change, the company gives the appearance of offering more graphic communication to help their readers with financial analysis than before. Photographs in letters to stockholders appear more frequently in net loss reports than is average for all reports before the 1989 ruling; however, after 1989, photographs appear less frequently than is average for all reports of this period. This finding suggests that companies have fewer positive situations to show or do not care to emphasize them, but this finding is not statistically significant ($p = .3$).

For the MD&A section of net loss reports after 1989, tables and photographs remain about the same as before 1989, but figures decrease in overall number and go from occurring more often in net loss reports than is average for all reports before 1989 to occurring less often in net loss reports than is average for all reports after 1989. Although these differences exist, they are not statistically significant ($p = .6$). Even though the 1989 SEC ruling specifically discusses more complete disclosure in the MD&A section,

companies do not use figures to accomplish this goal. Perhaps, as Paulson (1988) suggests, companies do not want readers to understand the financial condition.

Conversely, changes in the narrative section of net loss reports after 1989 are close to being statistically significant ($p=.06$). After 1989, the average number of tables and photographs in net loss reports decreases while the average number of figures increases slightly. Here at least, companies are making some effort to help their readers by using more figures to portray financial data graphically.

Summary

Companies use less graphic communication in years of net loss than they do in years of profit, leaving their readers with the more difficult task of analyzing financial data that is generally more complex without the benefit of the increased or at least the same amount of graphic communication. Although the 1989 SEC ruling indicates that companies should provide more complete disclosure in the MD&A section, they use less graphic communication in this section of net loss reports after the ruling than before, and the overall amount of graphic communication they use in this section also decreases. Only in the narrative section do the number of figures increase after 1989, and the increase is small. Although companies use slightly more graphic communication in this section, they still have less in the other sections and in the net loss reports overall. Conclusions follow in the next chapter.

CHAPTER 6

CONCLUSIONS

Because companies spend great amounts of time and resources in producing annual reports for their stockholders, one would expect to find optimum use of every method of conveying information. Based on literature that indicates many readers, when reading annual reports, look only at the visual elements or look at them first, one would also expect optimum graphic communication. With this finding in mind, one would also expect graphic communication to differ in annual reports of net loss years because of the need of companies to *show* readers the outlook for the future and plans to improve their financial performances. Although companies may show an outlook for the future and a projection for improved performance in profitable years, these aspects are not so critical for readers as in net loss years because readers often make investment decisions based on what they find (or do not find) in the annual reports.

This study focuses on two hypotheses related to graphic communication in annual reports:

- (1) net losses do not cause increases in the graphic communication, and
- (2) the 1989 Securities and Exchange Commission ruling on improved disclosure does not cause increases in graphic communication.

Testing these hypotheses required analysis of 12 characteristics of graphic communication in the annual reports of ten Fortune 100 companies for the years 1985-1994. The elements examined are as follows:

- (1) typography,
- (2) placement on the page,
- (3) introductions or references,
- (4) captions,
- (5) graphical integrity,
- (6) colors,
- (7) overall numbers of visual elements,
- (8) numbers of tables, photographs, and figures,
- (9) individual types of figures used,
- (10) sizes of the different types of graphic communication,
- (11) information conveyed, and
- (12) placement within the annual report sections.

Intermediate conclusions follow in two groups based on findings related to the two hypotheses listed above.

Graphic Communication in Annual Reports in Net Loss Years

In annual reports of companies that experience net losses,

- (1) graphic communication has no changes in typography, placement on the page, introductions or references, captions, integrity, or colors.
- (2) the average number of visual elements decreases.
- (3) the average number of tables increases.
- (4) the average number of photographs decreases.
- (5) the average number of figures decreases significantly at the level of 0.05.
- (6) of the individual types of figures,
 - (a) column graphs increase significantly in reports of net loss at the level of 0.01.

- (b) flow charts do not appear in net loss reports.
 - (c) 100% bar/ column graphs appear only in years of net loss.
 - (d) the remaining twelve appear less often in reports of net loss than profit (organization charts, deviated bar/column graphs, pictograms, maps, line graphs, time lines, pie graphs, logos, grouped bar/column graphs, surface graphs, renderings, drawings, divided bar/column graphs, and bar graphs).
- (7) the sizes of photographs and figures do not change.
 - (8) the subject matter of graphic communication does not change.
 - (9) of the four annual report sections examined, only the narrative or scope of operations section comes close to having a significant decrease in the number of tables and figures.

Graphic Communication in Net Loss Reports After the 1989 SEC Ruling

In annual reports of companies that experience net losses after the 1989 SEC ruling,

- (1) graphic communication has no changes in typography, placement on the page, introductions or references, captions, integrity, or colors.
- (2) the average number of visual elements decreases.
- (3) the average number of tables increases.
- (4) the average number of photographs increases slightly.
- (5) the average number of figures decreases.
- (6) of the individual types of figures,
 - (a) column graphs, grouped bar/column graphs, and divided bar/column graphs decrease.
 - (b) the average number of column graphs is less than the average for all reports.

- (c) five types appear more frequently in reports of net loss than profit (100% bar/column graphs, bar graphs, deviated bar/column graphs, surface graphs, and renderings).
 - (d) bar graphs, renderings, maps, organization charts, and logos appear only after 1989.
 - (e) line graphs, time lines, and pictograms do not appear after 1989.
 - (f) drawings decrease to be fewer than the average for all reports.
- (7) the sizes of photographs and figures do not change.
 - (8) the subject matter of graphic communication does not change.
 - (9) of the four annual report sections examined, only the narrative or scope of operations section comes close to having a significant decrease in the number of tables and figures and increase in the number of photographs.

A summary of these conclusions appears in Table 3 on the following page.

Effect of Conclusions on the Hypotheses

These conclusions lead to the rejection of both hypotheses. Of the 33 elements examined in the annual reports, 23 change when companies experience net losses. Of these changes, 18 were decreases in various aspects of graphic communication, indicating that most companies use less graphic communication in reports of net loss than they do in reports of profit. Therefore, net losses *do* cause decreases in graphic communication in annual reports. Of those 33 elements, fifteen change in annual reports of net loss after the 1989 SEC ruling. Average numbers of total visual elements, photographs, figures decrease; column graphs and divided bar/column graphs decrease, and figures and tables in the narrative section decrease. Net loss reports for this period have increases in the average number of photographs, 100% bar/ column graphs, organization charts, maps, bar graphs, surface graphs, and renderings; and photographs in the narrative section increase.

Table 3. Summary of Changes in Net Loss Annual Reports and Changes in Net Loss Reports After the 1989 SEC Ruling

Element Examined	Changes in Net Loss Annual Reports	Changes in Net Loss Reports After the 1989 SEC Ruling
Typography	no change	no change
Placement on page	no change	no change
Introductions/References	no change	no change
Captions	no change	no change
Integrity	no change	no change
Colors	no change	no change
Avg.# of visual elements	decreases	decreases
Avg. # of tables	increases	increases
Avg. # photographs	decreases	increases
Avg. number of figures	decreases	decreases
Individual figures		
Column graphs	increase	decrease
Flow charts	do not appear	no change
100% b/c graphs	only in net loss reports	increase
Organization charts	decrease	only after 1989
Deviated b/c graphs	decrease	increase
Pictograms	decrease	no change
Maps	decrease	only after 1989
Line graphs	decrease	no change
Time lines	decrease	no change
Pie graphs	decrease	no change
Logos	decrease	no change
Bar graphs	decrease	only after 1989
Grouped b/c graphs	decrease	less than average
Divided b/c graphs	decrease	decrease
Surface graphs	decrease	increase
Renderings	decrease	only after 1989
Drawings	decrease	no change
Sizes of photographs	no change	no change
Sizes of figures	no change	no change
Subjects of tables	no change	no change
Subjects of photographs	no change	no change
Subject matter of figures	no change	no change
Annual report sections	decrease in figures and tables in narrative	decrease in figures and tables and increase in photographs in narrative section

Key: Avg. = average, # = number, b/c= bar/column

Because three of the four overall averages decrease and because the individual types of figures that increase are not ones readers use most effectively, the net result of the ruling is a decrease in graphic communication. Thus, the 1989 SEC ruling on disclosure causes decreases in graphic communication in net loss reports after 1989 rather than the anticipated increase.

Conclusions About Individual Companies' Annual Reports

Of the seven companies examined that experience net losses, four consistently have less graphic communication in annual reports of net loss than is average for all reports; these are GM, IBM, Kodak, and Tenneco. The three exceptions are Alcoa, DuPont, and Philip Morris. For these three companies, the average number of visual elements and average number of tables in annual reports of net loss are greater than in years of profit both overall and after the 1989 SEC ruling. For Alcoa and DuPont, the average number of figures overall and after the 1989 SEC ruling is greater in annual reports of net loss than in reports of profit.

Significance of Research for Annual Report Readers

Companies are not following the recommendations found in the literature. Companies do not introduce graphic communication or refer readers to it; however, the literature indicates that introductions and references are the most important in alerting readers what to look for and when to look. The literature also suggests that more graphic communication helps readers understand factors leading to the losses and the forecasts for future improvements in companies' financial condition; however, the majority of the companies examined use less graphic communication in reports of net loss rather than more. Likewise, literature suggests that more graphic communication will help readers understand how the more complete disclosures required by the 1989 SEC ruling affect the companies' financial status, but instead of more graphic communication, companies

respond with less. With fewer visual elements in annual reports in net loss years, readers have greater difficulty in identifying and interpreting the information found. Rather than being *shown* the important matters, readers are left to determine these on their own. Likewise, readers are left on their own to integrate the graphic communication with the text of the reports. And of course, left on their own, readers may miss important information, misinterpret what they find, or draw faulty conclusions.

Possible Areas for Future Research

During this project, several issues arose that make interesting questions for future research on graphic communication and on graphic communication in annual reports. These are as follows:

- (1) Can one generally accepted, standardized set of guidelines for graphic design be established?
- (2) How does optical visual center of graphic communication differ from the geometric center in annual reports, and does the optical visual center and geometric center relationship change during reports of net loss?
- (3) What perceptions do the stockholders and other investors have of graphic communication in annual reports?
- (4) What effect do the changes in graphic communication in annual reports of net loss have on the rhetorical structure of the graphic communication?
- (5) What effect do the changes in graphic communication in annual reports have on the rhetorical structure of annual reports overall?
- (6) What are purposes of annual report designers in making the previously identified changes in graphic communication in annual reports of net loss?

(7) What is the optimum placement of graphic communication on the page (layout) in corporate annual reports?

(8) Does the SEC need to establish guidelines for using graphic communication in annual reports to ensure consistency from year to year and among all companies?

Two other questions arise from the conclusions presented above. The first relates to Paulson's suggestion in 1988 that companies use graphic communication to distract the reader from bad news: Do companies deliberately use less graphic communication in annual reports of net loss to distract readers or cover up the bad news? The second relates to the conclusion that the 1989 SEC ruling does cause changes in net loss reports after 1989: Does the fact that the companies in this study experience only four net losses before 1989 effect the findings and conclusions of this study on the effect of the 1989 SEC ruling?

Bibliography of Works Cited

- Albers, J. (1975). *Interaction of color*, (Rev. ed.). New Haven, CT: Yale University Press.
- Aluminum Company of America. (1986). *Alcoa 1985*. Pittsburg: Author.
- Aluminum Company of America. (1987). *Alcoa 1986*. Pittsburg: Author.
- Aluminum Company of America. (1988). *Alcoa 1987*. Pittsburg: Author.
- Aluminum Company of America. (1989). *Alcoa 1988*. Pittsburg: Author.
- Aluminum Company of America. (1990). *Alcoa 1989*. Pittsburg: Author.
- Aluminum Company of America. (1991). *Alcoa 1990*. Pittsburg: Author.
- Aluminum Company of America. (1992). *Alcoa 1991*. Pittsburg: Author.
- Aluminum Company of America. (1993). *Alcoa 1992*. Pittsburg: Author.
- Aluminum Company of America. (1994). *Alcoa 1993*. Pittsburg: Author.
- Aluminum Company of America. (1995). *Alcoa 1994*. Pittsburg: Author.
- The American Society of Mechanical Engineers (1979). *American national standards: Illustrations for publications and projection*, ANSI Y15.1m. New York: Author.
- Andrews, D.C. (1980). Visual presentation of technical information. *English in Texas*, 11, 86-88.
- Annual report awards competition. (1993). *Financial World*, 162 (22), pp. 97-105.
- Annual reports go modern. (1957, September 10). *Electronics* (Business Edition), p. 21.
- Arkin, H., & Colton, R.R. (1940). *Graphs, how to make and use them* (Rev. ed.). New York: Harper.
- Arnold, E.C. (1972). *Ink on paper 2: A handbook of the graphic arts*. New York: Harper & Row.

- Barlow, W.G. (1965). Annual reports and annual report writing. *Proceedings of the 12th Annual Convention on the Society of Technical Writing Professionals*. Washington, DC: Society of Technical and Writing Professionals.
- Barnett, M.T. (1987). *Writing for technicians* (3rd ed.). Albany, NY: Delmar.
- Barton, B.F., & Barton, M.S. (1987). Simplicity in visual representation: A semiotic approach. *Iowa State Journal of Business and Technical Communication*, 1, 9-26.
- Beattie, V. (1988). The changing face of the annual report. *Management Accounting*, 66 (2), 36-38.
- Beck, C.E., & Wallisch, W.J., Jr. (1981). Technical illustration. In D.W. Stevenson (Ed.), *Courses, components, and exercises in technical communication* (pp. 122-131). Urbana, IL: NCTE.
- Benson, P.J. (1985). Writing visually: Design consideration in technical publication. *Technical Communication*, 32, 35-39.
- Bertin, J. (1983). *Semiology of graphics: Diagrams, networks, maps*. (W.J. Berg, Trans.) Madison, WI: University of Wisconsin Press.
- Bethke, D.D. (1979). Simple graphic techniques for the technical writer. *Proceedings of the 26th International Technical Communication Conference* (pp. V11-16). Washington, DC: Society for Technical Communication.
- Bissell, D.E. (1977). Technical manuals--A visual vacuum. *Technical Communication*, 24, 9-11.
- Bodmer, G.R. (1983). Graphic aids for the technical writing student. *Technical Writing Teacher*, 11, 15-20.
- Book, V. (1980). Adapting graphics for various audiences. *Proceedings of the 31st Conference on College Composition and Communication*, pp. 193-197.
- Brinton, W.C. (1914). *Graphic methods for presenting facts*. New York: The Engineering Magazine Company.

- Brion, J.P. (1975). Getting ready for annual reports. *Financial Executive*, 43 (11), 39-41.
- Brockman, R.J. (1990). *Writing better computer user documentation: From paper to hypertext*. New York: Wiley.
- Brody, P.J. (1982). Affecting instructional textbooks through pictures. In D.H. Jonassen (Ed.), *The technology of text: Principles for structuring, designing, and displaying text* (pp. 310-316). Englewood Cliffs, NJ: Educational Technology Publications.
- Brody, P.J., & Legenza, A. (1980). Can pictorial attributes serve mathemagenic functions? *Educational Communication and Technology Journal*, 28, 25-29.
- Brown, M.A. (1978). Graphic aids in reporting technical information. *Journal of Technical Writing and Communication*, 8, 238-241.
- Brusaw, C.T., Alfred, G.J., & Oliu, W.E. (1993). *Handbook of technical writing* (4th ed.). New York: St. Martin's.
- Buehler, M.F. (1977). Report construction: Tables. *IEEE Transactions on Professional Communication*, 20, 29-32.
- Clark, N. (1987). Tables and graphs as a form of exposition. *Scholarly Publishing*, 19, 24-42.
- Cleveland, W.S. (1984a). Graphical methods for data presentation: Full scale breaks, dots, charts, and multibased logging. *American Statistician*, 38 (4), 270-278.
- Cochran, J., Albrecht, S.A., & Green, Y.A. (1989). Guidelines for evaluating graphical designs: A framework based on human perception skills. *Technical Communication*, 36 (1), 25-32.
- The complete annual report and corporate image planning book 5*. (1990). Chicago: Alexander Communications.
- Costello, J. (1976). What's read most in annual reports. *Nation's Business*, 64 (2), pp. 6, 8.

- Croxton, F.E., & Stryker, R.E. (1929). Bar charts versus circle diagrams. *Journal of the American Statistical Society*, 22, 473-482.
- Culbertson, H.M., & Powers, R.D. (1959). A study of graph comprehension difficulties. *AV Communication Review*, 7, 97-100.
- Dale, E. (1947). *Preparation of company annual reports*. New York: American Management Association.
- Darin, S. (1983). Using algorithms, prose, and graphics for presenting technical and business information. *ABCA Bulletin*, 46, 26-29.
- Das, J.P., Kirby, J., & Jarman, R.F. (1975). Simultaneous and successive synthesis: An alternative model for cognitive abilities. *Psychological Bulletin*, 82, 87-103.
- Davey, T.M. (1981). Drawings can communicate better. *IEEE Transactions on Professional Communication*, PC-24, 148-155.
- Denmarch, R.I., & Esteban, F.R. (1988). How to produce a credible annual report. *Public Relations Journal*, 44 (10), 35-36.
- Dennis, E., & Jenkins, J.D. (1974). *Comprehensive graphic arts*. Indianapolis, IN: Howard W. Sams.
- Dickinson, G.C. (1973). *Statistical mapping and the presentation of statistics* (2nd ed.). London: Edward Arnold.
- Doris, L. (1948). *Modern corporate reports*. New York: Prentice-Hall.
- Duchastel, P.C. (1982). Textual display techniques. In D.H. Jonassen (Ed.), *The technology of text: Principles for structuring, designing, and displaying text* (Vol 1. pp. 167-192). Englewood Cliffs, NJ: Educational Technology Publications.
- Duff, J.M. (1982). *Industrial technical illustration*. Monterey, CA: Brooks/Cole Engineering Division.
- Dumont, R.A. (1987). *Business communications* (2nd ed.). Boston: Little, Brown.
- Dunk, W.P. (1980). 28 trends in annual reports. *Public Relations Journal*, 36 (8), 10-13.

- E.I. du Pont Nemours and Company. (1986). *Du Pont annual report 1985*. Wilmington,
DE: Author.
- E.I. du Pont Nemours and Company. (1987). *Du Pont annual report 1986*. Wilmington,
DE: Author.
- E.I. du Pont Nemours and Company. (1988). *Du Pont annual report 1987*. Wilmington,
DE: Author.
- E.I. du Pont Nemours and Company. (1989). *Du Pont annual report 1988*. Wilmington,
DE: Author.
- E.I. du Pont Nemours and Company. (1990). *Du Pont annual report 1989*. Wilmington,
DE: Author.
- E.I. du Pont Nemours and Company. (1991). *Du Pont annual report 1990*. Wilmington,
DE: Author.
- E.I. du Pont Nemours and Company. (1992). *Du Pont annual report 1991*. Wilmington,
DE: Author.
- E.I. du Pont Nemours and Company. (1993). *Du Pont annual report 1992*. Wilmington,
DE: Author.
- E.I. du Pont Nemours and Company. (1994). *Du Pont annual report 1993*. Wilmington,
DE: Author.
- E.I. du Pont Nemours and Company. (1995). *Du Pont annual report 1994*. Wilmington,
DE: Author.
- Dyer, J. (1981). Predictable: The watchword for the 1980 reports. *Public Relations
Journal*, 37 (8), 9-10.
- Eastman Kodak Company. (1986). *Eastman Kodak Company 1985 annual report*.
Rochester: Author.
- Eastman Kodak Company. (1987). *Eastman Kodak Company 1986 annual report*.
Rochester: Author.

- Eastman Kodak Company. (1988). *Eastman Kodak Company 1987 annual report*.
Rochester: Author.
- Eastman Kodak Company. (1989). *Eastman Kodak Company 1988 annual report*.
Rochester: Author.
- Eastman Kodak Company. (1990). *Eastman Kodak Company 1989 annual report*.
Rochester: Author.
- Eastman Kodak Company. (1991). *Eastman Kodak Company 1990 annual report*.
Rochester: Author.
- Eastman Kodak Company. (1992). *Eastman Kodak Company 1991 annual report*.
Rochester: Author.
- Eastman Kodak Company. (1993). *Eastman Kodak Company 1992 annual report*.
Rochester: Author.
- Eastman Kodak Company. (1994). *Eastman Kodak Company 1993 annual report*.
Rochester: Author.
- Eastman Kodak Company. (1995). *Eastman Kodak Company 1994 annual report*.
Rochester: Author.
- Enrick, N. (1980). *Handbook of effective graphic and tabular communication*.
Melbourne, FL: Kreiger, 1980.
- Exxon Corporation. (1986). *Exxon 1985 annual report*. Irving, TX: Author.
- Exxon Corporation. (1987). *Exxon 1986 annual report*. Irving, TX: Author.
- Exxon Corporation. (1988). *Exxon 1987 annual report*. Irving, TX: Author.
- Exxon Corporation. (1989). *Exxon 1988 annual report*. Irving, TX: Author.
- Exxon Corporation. (1990). *Exxon 1989 annual report*. Irving, TX: Author.
- Exxon Corporation. (1991). *Exxon 1990 annual report*. Irving, TX: Author.
- Exxon Corporation. (1992). *Exxon 1991 annual report*. Irving, TX: Author.
- Exxon Corporation. (1993). *Exxon 1992 annual report*. Irving, TX: Author.

- Exxon Corporation. (1994). *Exxon 1993 annual report*. Irving, TX: Author.
- Exxon Corporation. (1995). *Exxon 1994 annual report*. Irving, TX: Author.
- Feliciano, G.D., Powers, R.D., & Kearns, B.E. (1963). The presentation of statistical information. *AV Communication Review*, 11, 32-39.
- Filley, R. (1982). Opening the door to communication through graphics. *IEEE Transactions on Professional Communication*, PC-25, 91-94.
- Finney, D.J. (1986). On presenting tables and diagrams. *Scholarly Publishing*, 17, 327-342.
- Floyd, E.R. (1960). *Preparing the annual report*. New York: American Management Association.
- The Fortune 500. (1986). *Fortune*, 113 (9), pp. 175-232.
- The Fortune 500. (1987). *Fortune*, 115 (9), pp. 359 - 410.
- The Fortune 500. (1988). *Fortune*, 117 (9), pp. D1-D58.
- The Fortune 500. (1989). *Fortune*, 119 (9), pp. 346-401.
- The Fortune 500. (1990). *Fortune*, 121 (9), pp. 338-396.
- The Fortune 500. (1991). *Fortune*, 123 (8), pp. 280-336.
- The Fortune 500. (1992). *Fortune*, 125 (8), pp. 211-316.
- The Fortune 500. (1993). *Fortune*, 127 (8), pp. 174-288.
- The Fortune 500. (1994). *Fortune*, 129 (8), pp. 209-314.
- The Fortune 500. (1995). *Fortune*, 131 (9), pp. F1-F68.
- Francis, E. (1962). *Using charts to improve profits*. Englewood Cliffs, NJ: Prentice-Hall.
- Fry, E.B. (1981). *Graphic comprehension: How to read and make graphs*. Providence, RI: Jamestown.
- General Electric Company. (1986). *General Electric Company 1985 annual report*. Fairfield, CT: Author.

General Electric Company. (1987). *General Electric Company 1986 annual report.*

Fairfield, CT: Author.

General Electric Company. (1988). *General Electric Company 1987 annual report.*

Fairfield, CT: Author.

General Electric Company. (1989). *General Electric Company 1988 annual report.*

Fairfield, CT: Author.

General Electric Company. (1990). *General Electric Company 1989 annual report.*

Fairfield, CT: Author.

General Electric Company. (1991). *General Electric Company 1990 annual report.*

Fairfield, CT: Author.

General Electric Company. (1992). *General Electric Company 1991 annual report.*

Fairfield, CT: Author.

General Electric Company. (1993). *General Electric Company 1992 annual report.*

Fairfield, CT: Author.

General Electric Company. (1994). *General Electric Company 1993 annual report.*

Fairfield, CT: Author.

General Electric Company. (1995). *General Electric Company 1994 annual report.*

Fairfield, CT: Author.

General Motors Corporation. (1986). *General Motors 1985 annual report.* Detroit:

Author.

General Motors Corporation. (1987). *General Motors 1986 annual report.* Detroit:

Author.

General Motors Corporation. (1988). *General Motors 1987 annual report.* Detroit:

Author.

General Motors Corporation. (1989). *General Motors 1988 annual report.* Detroit:

Author.

- General Motors Corporation. (1990). *General Motors 1989 annual report*. Detroit: Author.
- General Motors Corporation. (1991). *General Motors 1990 annual report*. Detroit: Author.
- General Motors Corporation. (1992). *General Motors 1991 annual report*. Detroit: Author.
- General Motors Corporation. (1993). *General Motors 1992 annual report*. Detroit: Author.
- General Motors Corporation. (1994). *General Motors 1993 annual report*. Detroit: Author.
- General Motors Corporation. (1995). *General Motors 1994 annual report*. Detroit: Author.
- Gould, C.R. (1973). Visual aids--How to make them positively legible. *IEEE Transactions on Professional Communication, PC-16*, 35-40.
- Greenly, R.B. (1985). Technical writing and illustrating: Strategies for winning government contracts. *IEEE Transactions on Professional Communication, PC-28*, 7-12.
- Grice, R.A., & Rubens, P.M. (1982). Placement and alphanumeric/iconic identification of textual/illustrative materials for technical and scientific communications. *Proceedings of the Professional Communication Society of IEEE* (pp. 96-99). New York: Institute of Electrical and Electronics Engineers.
- Haber, R.N., & Hershenson, M. (1980). *The psychology of visual perception*. New York: Holt, Rinehart, and Winston.
- Hall, R.O. (1943). *Handbook of tabular presentation*. New York: Ronald.
- Hammet, B.F. (1975). The eye sees, but the mind perceives. *Journal of Technical Writing and Communication, 5*, 131-136.

- Hand, J.D. (1982). Brain functions during learning: Implications for text design. In D.H. Jonassen (Ed.), *The technology of text* (pp. 91-119). Englewood Cliffs, NJ: Prentice-Hall.
- Hanks, K., & Belliston, L. (1977). *DRAW! A visual approach to thinking, learning, and communicating*. Los Altos, CA: Kaufmann.
- Hanks, K., & Bellison, L. (1980). *Rapid viz: A new method for the rapid visualization of ideas*. Los Altos, CA: Kaufmann.
- Hanna, J.S. (1982). Six starts toward better graphs. *Technical Communication*, 29, 4-8.
- Hartley, J. (Ed.). (1980). *The psychology of written communication*. London: Kogan Page.
- Hartley, J. (1985b). *Designing instructional text* (2nd ed). New York: Nichols.
- Hartley, J., & Burnhill, P. (1977). Understanding instructional text: Typography, layout, and design. In M. Howe (Ed.), *Adult learning: Psychological research and applications* (pp. 223-247). New York: Wiley.
- Henderson, A.C. (1981). Editing for the first half-second: The perceptual process and the technical editor. *Proceedings of the 28th International Technical Communication Conference* (pp. W49-52). Washington, DC: Society for Technical Communication.
- Herring, J. (1990). *Annual report design: A guide to the annual report process for graphic designers and corporate communicators*. New York: Watson-Guptill, pp. 35-105.
- Hicks, T.G. (1961). *Writing for engineering and science*. New York: McGraw-Hill.
- Himstreet, W.C., & Baty, W.M. (1987). *Business communication* (8th ed.). Boston: Kent.
- Horton, W. (1991). Overcoming chromophobia: A guide to the confident and appropriate use of color. *IEEE Transactions on Professional Communication*, 34, 160-171.

- Horton, W. (1992a). Beyond words: Visual literacy for technical communicators. *Proceedings of the 39th International Technical Communication Conference* (pp. VC 37-39). Washington, DC: Society of Technical Communication.
- Horton, W. (1992b). Creating usable data displays: Tables, Charts, and Diagrams. In P.M. Rubens (Ed.), *Science and technical writing: A manual of style* (pp. 327-425). New York: Holt.
- Hoskins, R.L. (1984). Annual reports I: Difficult reading and getting more so. *Public Relations Review*, 10 (2), 49-55.
- Howard, E. (1991). Preparing annual reports in the 1990s. *Public Relations Journal*, 47 (5), 26-27.
- International Business Machines. (1986). *IBM 1985 annual report*. Armonk, NY: Author.
- International Business Machines. (1987). *IBM 1986 annual report*. Armonk, NY: Author.
- International Business Machines. (1988). *IBM 1987 annual report*. Armonk, NY: Author.
- International Business Machines. (1989). *IBM 1988 annual report*. Armonk, NY: Author.
- International Business Machines. (1990). *IBM 1989 annual report*. Armonk, NY: Author.
- International Business Machines. (1991). *IBM 1990 annual report*. Armonk, NY: Author.
- International Business Machines. (1992). *IBM 1991 annual report*. Armonk, NY: Author.
- International Business Machines. (1993). *IBM 1992 annual report*. Armonk, NY: Author.

International Business Machines. (1994). *IBM 1993 annual report*. Armonk, NY:

Author.

International Business Machines. (1995). *IBM 1994 annual report*. Armonk, NY:

Author.

International Paper Company. (1986). *International Paper 1985 annual report*. Purchase,

NY: Author.

International Paper Company. (1987). *International Paper 1986 annual report*. Purchase,

NY: Author.

International Paper Company. (1988). *International Paper 1987 annual report*. Purchase,

NY: Author.

International Paper Company. (1989). *International Paper 1988 annual report*. Purchase,

NY: Author.

International Paper Company. (1990). *International Paper 1989 annual report*. Purchase,

NY: Author.

International Paper Company. (1991). *International Paper 1990 annual report*. Purchase,

NY: Author.

International Paper Company. (1992). *International Paper 1991 annual report*. Purchase,

NY: Author.

International Paper Company. (1993). *International Paper 1992 annual report*. Purchase,

NY: Author.

International Paper Company. (1994). *International Paper 1993 annual report*. Purchase,

NY: Author.

International Paper Company. (1995). *International Paper 1994 annual report*. Purchase,

NY: Author.

Jacobi, E. (1976). *Writing at work: Dos, don'ts, and how tos*. Rochelle Park, NJ:

Hayden.

- Jereski, L. (1987). Beware of what you don't see. *Forbes*, 139 (6), p. 102.
- Johnson, J.R., Rice, R.R., & Roemmich, R.A. (1980). Pictures that lie: The abuse of graphics in annual reports. *Management Accounting*, 662 (4), 50-56.
- Jones, M.J. (1994). A comment to contextualize "Performance and readability : A comparison of profitable and unprofitable annual reports." *Journal of Business Communication*, 31, 225-230.
- Keyes, E. (1993). Typography, color, and information structure. *Technical Communication*, 40, 638-654.
- Koestler, F.A. (1969). *Creative annual reports*. New York: National Public Relations Council of Health and Welfare Services.
- Kostelnick, C. (1988b). A systematic approach to visual language in business communication. *Journal of Business Communication*, 25 (3), 29-48.
- Krohn, G.S. (1983). Flowcharts used for procedural instructions. *Human Factors*, 25, 573-581.
- Laner, F.J. (1978). Readability techniques for authors and editors. In J.R. Gould (Ed.), *Directions in Technical Writing and Communication* (pp. 136-147). Farmingdale, NY: Baywood.
- Lannon, J.M. (1994). *Technical writing* (5th ed.). Glenview, IL: Scott.
- Laseau, P. (1980). *Graphic thinking for architects and designers*. New York: Reinhold.
- Laseau, P. (1987). *Ink-line sketching*. New York: Van Nostrand Reinhold.
- Lefferts, R. (1981). *How to prepare charts and graphs for effective reports*. New York: Harper & Row.
- Lesikar, R.V. (1981). *Report writing for business* (6th ed.). Homewood, IL: Irwin.
- Lewis, R.A. (1971). *Annual reports: Conception and design of annual reports*. Zurich: Graphis, pp. 11-20.

- Lewis, R.A. (1972). Tomorrow's annual report: Paragon of communication. *Public Relations Journal*, 28 (2), 6,11-12, 47-51.
- Lewis, P.V., & Baker, W.H. (1978). *Business report writing*. Columbus, OH: Grid.
- Lutz, R.R. (1949). *Graphic presentation simplified*. New York: Funk & Wagnalls.
- Macdonald-Ross, M. (1978). Graphics in texts. In L.S. Shulman (Ed.), *Review of research in education* (Vol. 5, pp. 49-86). Itasca, IL: F.E. Peacock.
- MacGregor, A.J. (1979). *Graphics simplified*. Toronto: University of Toronto Press.
- MacGregor, A.J. (1982). Selecting the appropriate chart. *IEEE Transactions on Professional Communication*, PC-25, 102-104.
- MacIntyre, A. (1974). Light and seeing. In C.E. Moorhouse (Ed.), *Visual education* (pp. 2-22). Netley, South Australia: Griffin Press.
- Management's discussion and analysis of financial condition and results of operations; Certain investment company disclosures. (1989, May 24). *Federal Register*, 54 (99), 22427-22436.
- Mann, G.A. (1984). How to present tabular information badly. *Proceedings of the 31st International Technical Communication Conference*, (pp. WE 48-51). Washington, DC: Society for Technical Communication.
- Marra, J.L. (1981). For writers: Understanding the art of layout. *Technical Communication*, 28, 11-13, 40.
- McKim, R.H. (1972). *Experiences in visual thinking*. Belmont, CA: Wadsworth.
- McLaren, N.L. (1947). *Annual reports to stockholders: Their preparation and interpretation*. New York: Ronald.
- Means, T.L. (1981) Readability: An Evaluative Criterion of Stockholder Reaction to Annual Reports. *Journal of Business Communication*, 18 (1), 25-33.

- Metallinos, N. (1979). Perception of the TV picture: Some hypotheses to test the forces operating within the television screen. *Educational Communication and Technology Journal*, 27, 205-214.
- Meyer, H.E. (1979, 7 May). Annual reports get an editor. *Fortune*, pp. 210-12, 216, 220, 222.
- Meyers, C.H. (1970). *Handbook of basic graphs: A modern approach*. Encino, CA: Dickenson.
- Milroy, R., & Poulton, E.C. (1979). Labeling graphs for improved reading speed. *IEEE Transactions on Professional Communication, PC-22*, 30-33.
- Minor, D.E. (1980). Visual aids in technical writing. *English in Texas*, 11, 86-88.
- Modley, R. (1937). *How to use pictorial statistics*. New York: Harper.
- Moorhouse, C.E. (1974). The scope and purpose of visual education. In C.E. Moorhouse (Ed.), *Visual education* (pp. 1-6). Netley, South Australia: Griffin Press.
- Morris, G.E. (1975). *Technical illustrating*. Englewood Cliffs, NJ: Prentice-Hall.
- Murch, G.M. (1985). Using color effectively: Designing to human specifications. *Technical Communication*, 32, 14-20.
- Murgio, M.P. (1969). *Communication graphics*. New York: Reinhold.
- Murphy, P.W., & Rhiner, R.W. (1991). Editing graphs for maximum effect. *Proceedings of the 38th International Technical Communication Conference* (pp. VC 33-36). Washington, DC: Society for Technical Communication.
- Myers, J.H. (1950). *Statistical presentation*. Ames, IO: Littlefield, Adams.
- Nelms, H. (1957). *Thinking with a pencil*. New York: Barnes.
- Newman, E. (1987). They could try a little English. *Business Month*, 130 (6), p. 8.
- Newman, R.G. (1987). *Communicating in business today*. Lexington, MA: Heath.

- Niekamp, W. (1981). An exploratory investigation in factors affecting visual balance. *Educational Communication and Technology Journal*, 29, 37-48.
- Olson, L.A., & Huckin, T.N. (1983). *Principles of communication for science and technology*. New York: McGraw-Hill.
- Paller, A., et al. (1981). *Choosing the right chart: A comprehensive guide for computer graphics users*. San Diego, CA: Integrated Software Systems Corp.
- Paskowski, M. (1981). Stifling the yawn: Annual reports awaken to new audiences. *Industrial Marketing*, 66 (3), 66-68, 70.
- Paulson, M.C. (1988). 'Tis the season for annual reports, and there's more to see than meets the eye. *Changing Times*, 42 (4), p. 16.
- Pearce, C.G., Figgins, R., & Golen, S.P. (1984). *Principles of business communication*. New York: Wiley.
- Peterson, B.K. (1983). Tables and graphs improve reader performance and reader reaction. *Journal of Business Communication*, 20, 47-55.
- Philip Morris Companies, Inc. (1986). *Philip Morris Companies Inc. annual report 1985*. New York: Author.
- Philip Morris Companies, Inc. (1987). *Philip Morris Companies Inc. annual report 1986*. New York: Author.
- Philip Morris Companies, Inc. (1988). *Philip Morris Companies Inc. annual report 1987*. New York: Author.
- Philip Morris Companies, Inc. (1989). *Philip Morris Companies Inc. annual report 1988*. New York: Author.
- Philip Morris Companies, Inc. (1990). *Philip Morris Companies Inc. annual report 1989*. New York: Author.
- Philip Morris Companies, Inc. (1991). *Philip Morris Companies Inc. annual report 1990*. New York: Author.

- Philip Morris Companies, Inc. (1992). *Philip Morris Companies Inc. annual report 1991*.
New York: Author.
- Philip Morris Companies, Inc. (1993). *Philip Morris Companies Inc. annual report 1992*.
New York: Author.
- Philip Morris Companies, Inc. (1994). *Philip Morris Companies Inc. annual report 1993*.
New York: Author.
- Philip Morris Companies, Inc. (1995). *Philip Morris Companies Inc. annual report 1994*.
New York: Author.
- Pinelli, T.E., Cordle, V.M., & McCullough, R. (1986). A survey of typography, graphic design, and physical media in technical reports. *Technical Communication*, 33, 75-80.
- Pitre, L. & Smeltzer, L. (1982). Graphic reinforcement for an oral presentation. *ABCA Bulletin*, 45, 6-9.
- Powers, M., Lashley, C., Sanchez, P., & Shneiderman, B. (1984). An experimental comparison of tabular and graphic data presentation. *International Journal of Man-Machine Studies*, 20, 545-566.
- Pratt, S.J. (1979). A recipe for 10,000 words--Technical graphs/charts. *Proceedings of the 26th International Communication Conference* (pp. V71-75). Washington, DC: Society for Technical Communication.
- Rasco, R., Tennyson, R., & Boutwell, R. (1975). Imagery instructions and drawing in learning prose. *Journal of Educational Psychology*, 67, 188-192.
- Raynolds, E.O. (1983). Annual report update: 1983 reports face new challenges. *Public Relations Journal*, 39 (11), 40-41, 44.
- Roller, B.V. (1980). Graph reading abilities of thirteen-year-olds. In Kolers, P.A., Wrolstad, M.E., and Bouma, H. (Eds.), *Processing of visible language 2* (pp. 305-314). New York: Plenum.

- Rooney, PS & Evans, E.B. (1983). Using Annual Reports to Strengthen Business Communication Students' Understanding of Audience. *ABCA Bulletin*, 46 (4), pp. 5-9.
- Rothman, A. (1991, May 13). Won't you pleeeeee read our annual report? *Business Week* (Industrial/Technology Edition), p. 50.
- Royer, J. & Cable, G. (1976). Illustrations, analogies, and facilitative transfer in prose learning. *Journal of Educational Psychology*, 68, 205-209.
- Rubens, P.M. (1986). A reader's view of text and graphics: Implications for transactional text. *Journal of Technical Writing and Communication*, 16, 73-86.
- Rubens, P.M.. (1992). *Science and technical writing: A manual of style*. New York: H. Holt.
- Ruch, W.V. (1979). The corporate annual report as a teaching aid in business communication classes. *ABCA Bulletin*, 42 (12), 1-3.
- Samson, D.C., Jr. (1992). Common flaws in technical graphics. *Proceedings of the 39th International Technical Communication Conference* (p. 246). Washington, DC: Society for Technical Communication.
- Sanchez, Y.J., & Levy, A.L. (1991). The psychology of graphical illusion in technical communication. *Proceedings of the 38th International Technical Communication Conference* (pp. VC 19-20). Washington, DC: Society for Technical Communication.
- Sanders, T.H. (1949). *Company Annual Reports*. Andover: Andover Press.
- Saunders, A. (1982). Writing effective assembly procedures. *IEEE Transactions on Professional Communication*, PC-25, 20-21.
- Schmid, C.F., & Schmid, S.E. (1979). *Handbook of graphic presentation* (2nd ed.). New York: Wiley.

- Schoff, G.H., & Robinson, P.A. (1984). *Writing and designing operator manuals*. Belmont, CA: Wadsworth.
- Schultz, H.G. (1961a). An evaluation of formats for graphic trend displays. *Human Factors*, 3, 99-107.
- Schultz, H.G. (1961b). An evaluation of methods for presentation of graphic multiple trends. *Human Factors*, 3, 108-119.
- Schitte, W.M., & Steinburg, E.R. (1983). *Communication in business and industry*. New York: Holt, Rhinehart and Winston.
- Seibert, L., & Ballard, L. (1992). *Making a good layout*. Cincinnati, OH: North Light Books.
- Selvage, J.P., & Lee, M.M. (1938). *Making the annual report speak for the industry*. New York: McGraw-Hill.
- Simcox, W.A. (1984). A design method for graphic communication. *ABCA Bulletin*, 47, 3-7.
- Small, H.A. (1973). In-line flowcharts. *Proceedings of the 20th International Technical Communication Conference* (pp. 175-178). Washington, DC: Society for Technical Communication.
- Smart, T. (1989, April 10). Annual reports: The SEC cracks the whip. *Business Week* (Industrial/Technology Edition), p. 74.
- Smith, S.L., & Thomas, D.W. (1964). Color versus shape coding in information displays. *Journal of Applied Psychology*, 48, 137-146.
- Spear, M.E. (1969). *Practical charting techniques*. New York: McGraw-Hill.
- Stanley, G. (1974). The human information processing of visual images. In C.E. Moorhouse (Ed.), *Visual education* (pp. 23-36). Netley, South Australia: Griffin Press.

- Strong, C.W., & Edison, D. (1980). Displaying data: Types of graphic aids. In K.J. Harty (Ed.), *Strategies for business and technical writing* (pp. 218-240). New York: Harcourt.
- Subramanian, R., Insley, R.G., & Blackwell, R.D. (1993). Performance and Readability: A Comparison of Annual Reports of Profitable and Unprofitable Corporations. *Journal of Business Communications*, 30, 49-61.
- Surry, R. (1929). *Layout techniques in advertising*. New York: McGraw-Hill.
- Szoka, K. (1982). A guide to choosing the right chart type. *IEEE Transactions on Professional Communication*, PC-25, 98-101.
- Talucci, D.A., ed. (1959). *The preparation of the annual report: A document of modern business*. Detroit: Research Bureaus, Inc.
- Talucci, D.A. (Ed). (1963). *How to prepare better annual reports*. Detroit: Research Bureaus, Inc.
- Teicher, W.H., & Krebs, M.J. (1974). Visual search for simple targets. *Psychological Bulletin*, 81, 15-28.
- Tenneco Inc. (1986). *Tenneco 1985*. Houston: Author.
- Tenneco Inc. (1987). *Tenneco 1986*. Houston: Author.
- Tenneco Inc. (1988). *Tenneco 1987*. Houston: Author.
- Tenneco Inc. (1989). *Tenneco 1988*. Houston: Author.
- Tenneco Inc. (1990). *Tenneco 1989*. Houston: Author.
- Tenneco Inc. (1991). *Tenneco 1990*. Houston: Author.
- Tenneco Inc. (1992). *Tenneco 1991*. Houston: Author.
- Tenneco Inc. (1993). *Tenneco 1992*. Houston: Author.
- Tenneco Inc. (1994). *Tenneco 1993*. Houston: Author.
- Tenneco Inc. (1995). *Tenneco 1994*. Houston: Author.

- Thomas, E.G. (1978). The corporate annual report: A basic resource in the written communication course. *ABCA Bulletin*, 41 (2), 29-34.
- Tolansky, S. (1967). *Optical illusions*. New York: Pergamon Press.
- Tonkin, D.J. (1989). *World survey of published accounts: An analysis of 200 annual reports from the world's leading companies*. London: Lafferty.
- Treece, M. (1991). *Successful communication for business and the professions* (5th ed.). Boston: Allyn and Bacon.
- Trzyna, T.N., & Batschelet, M.W. (1987). *Writing for the technical professions*. Belmont, CA: Wadsworth.
- Tubbs, D.C. (1969). Visual language, the key to visual literacy. *Proceedings of the 16th International Technical Communications Conference* (pp. A35-43). Washington, DC: Society for Technical Communication.
- Tufte, E.R. (1983). *The Visual Display of Quantitative Information*. Cheshire, CT: Graphics.
- Tufte, E.R. (1988). The power of graphics: Escaping the flatland of chartjunk to the multivariate world of hyperspace. *PC Computing*, 1, 88-93.
- Tukey, J.W. (1977). *Exploring data analysis*. Reading, MA: Addison -Wesley.
- Tullis, T. (1981). An evaluation of alphanumeric, graphic, and color informative displays. *Human Factors*, 23, 541-550.
- Turnbull, A.T., & Baird, R.N. (1980). *The graphics of communication: Typography, layout, design, and production* (4th ed.). New York: Holt.
- Tuscon, A. (1994, February). Annual reports: Are economic pressures changing the industry? *Industrial Photography*, 43, pp. 30-3.
- Using ratios and graphics in financial reporting*. (1993). Toronto: Canadian Institute of Chartered Accounts.
- Varner, I.I. (1991). *Contemporary business writing* (2nd ed.). Chicago: Dryden.

- Vernon, M.D. (1946). Learning from graphic material. *British Journal of Psychology: General*, 36, 145-158.
- Wainer, H. (1980). Making newspaper graphs fit to print. In Kolers, P.A., Wrolstad, M.E., and Bouma, H. (Eds.), *Processing of visible language 2* (pp. 123-142). New York: Plenum.
- Waller, R., Lefrere, P., & MacDonald-Ross, M. (1982). Do you need that second color? *IEEE Transactions on Professional Communication, PC-25*, 80-85.
- Washburn, J.N. (1927). An experimental study of various graphic, tabular, and textural methods of presenting quantitative material. *Journal of Educational Psychology*, 18, 361-376.
- White, J.V. (1982). *Editing by design* (2nd ed.). New York: R.R. Bowker.
- Williams, T.R. (1992). Using visuals effectively: Some guidelines from cognitive science. *Proceedings of the 39th International Technical Communication Conference* (pp. 216-219). Washington, DC: Society for Technical Communication.
- Winn, W.D. (1991). Color in document design. *IEEE Transactions on Professional Communication*, 34, 180-185.
- Winn, W., & Holliday, W. (1982). Design principles for diagrams and charts. In D.H. Jonassen (Ed.), *The technology of text: Principles for structuring, designing and displaying text* (pp. 277-299). Englewood Cliffs, NJ: Educational Technology Publications.
- Woods, D.R. (1967). Putting technical illustrations to work. *Chemical Engineering*, 74 (23), 241-246.

- Wright, P. (1980). The comprehension of tabulated information: some similarities between reading prose and reading tables. *National Society for Performance and Instruction Journal*, 19, 25-29.
- Wright, P. (1982). A user-oriented approach to the design of tables and flowcharts. In D.H. Jonassen (Ed.), *The technology of text: Principles for structuring, designing and displaying text* (pp. 317-340). Englewood Cliffs, NJ: Educational Technologies Publications.
- XEROX publishing standards: A manual of style and design.* (1988). New York: Watson-Guptill.
- Yates, J. (1985). Graphs as a managerial tool: A case study of DuPont's use of graphs in the early 20th century. *Journal of Business Communication*, 22 (1), 5-33.
- Zelazny, G. (1975). Grappling with graphics. *Management Review*, 64 (10), 4-16.

SUPPLEMENTAL BIBLIOGRAPHY

- Abelson, R., & Jacob, R. (1989). The biggest blowout ever. *Fortune*, 119 (9), pp. 346-353.
- Accounting techniques used in published corporate annual reports.* (1949). New York: American Institute of Accountants.
- Accounting trends and techniques in published corporate annual reports.* (1950-1961). New York: The Institute.
- Allen, A. (1977). *Steps toward better scientific illustrations* (2nd ed.). Lawrence, KS: Allen Press.
- Alpert, M., & Kirsch, S.L. (1988). The good times finally roll. *Fortune*, 117 (9), pp. D1-D10.
- Andrews, D.C. (1980a). The rhetoric of visuals. *Proceedings of the 31st Conference on College Composition and Communication*, 221-228.
- Annual report awards competition. (1991). *Financial World*, 160 (23), pp. 62-72.
- Annual report awards competition. (1992). *Financial World*, 161 (22), pp. 70-80.
- The annual report 1978: Thick and innovative. (1979, 11 April). *Business Week*, pp. 114-16, 118.
- Annual report that reads like a magazine. (1956, March 17). *Business Week*, pp. 112-114.
- Annual reports: do they reflect reality? (1986, January). *Electrical World*, 200, pp. 76.
- Annual reports show a mixed bag of results for 1984. (1985). *Mining Engineering*, 37, 530-1.
- Arnheim, R. (1969). *Visual thinking*. Berkeley: University of California Press.
- Arnheim, R. (1974). Introduction. In C.E. Moorhouse (Ed.), *Visual education* (no pp). Netley, South Australia: Griffin Press.

- Auger, B.Y. (1980). The specialist makes a presentation. *IEEE Transactions on Professional Communication, PC-23*, 122-125.
- Autry, R., & Colodny, M.M. (1990). Hanging tough in a rough year. *Fortune*, 121 (9), pp. 338-345.
- Barrett, K. & Greene, R. (1986). What you should be learning from annual reports. *Working Woman*, 11 (6), pp. 110-111,113, 128.
- Barton, B.F., & Barton, M.S (1989). Trends in visual representation. In C. Sides (Ed.), *Technical and business communication: Bibliographic essays for teachers and corporate trainers*. (pp. 95-135). Urbana, IL: NCTE.
- Beck, R.J. & Smith, G.E. (1988). Annual reports peg 1987 as a so-so year for O&G group of companies. *Oil and Gas Journal*, 86 (22),19-20.
- Bell, J. (1984). The effect of presentation form on the use of information in annual reports. *Management Science*, 30, 169-185.
- Beniger, J.R., & Robyn, D.L. (1978). Quantitative graphics in statistics: A brief history. *The American Statistician*, 32, 1-11.
- Bernard, R., Petersen, C., & Ally, M. (1981). Can images provide contextual support for prose? *Educational Communication and Technology Journal*, 29, 101-108.
- Bernstein, L.A. (1974). *Understanding corporate reports*. Homewood, IL: Dow Jones-Irwin.
- Berryman, G. (1980). *Notes on graphic design and visual communication*. Los Altos, CA: W. Kaufman.
- The best annual reports. (1985). *Institutional Investor*, 19 (9), pp. 94-96, 98, 100.
- Blaiwes, A.S. (1974). Formats for presenting procedural instructions. *Journal of Applied Psychology*, 59, 683-686.
- Blotnick, S. (1983). Take your report and" *Forbes*, 32 (4), 128-29.

- Bly, R.W., & Blake, G. (1982). *Technical writing: Structure, standards, and style*. New York: McGraw Hill.
- Bohle, R.H. (1990). *Publication design for editors*. Englewood Cliffs, NJ: Prentice-Hall.
- Book, V.A. (1981). Who? Why? What? When? How? Adapting graphics for various audiences. *NACTA Journal*, 25, 9-11.
- Booker, H.L. (1975). Relative comprehensibility of pictorial information and printed words in procedural instructions. *Human Factors*, 17, 266-77.
- Boyadjian, H.J. (1992). *Risks: Reading corporate signals*. Chichester: John Wiley & Sons.
- Brinegar, J. & Turpin, E. (1980). Typography and graphic design for readability and imagery. *Proceedings of the 27th International Technical Communication Conference* (pp. G27-29). Washington, DC: Society for Technical Communication.
- Brockman, R.J. (1991). The unbearable distraction of color. *IEEE Transactions on Professional Communication*, 34, 153-159.
- Brokaw, L., Lammers, T., Mangelsdorf, M.E., Posner, B.G., & Soloman, S.D. (1988). An open and pretty book. *Inc.*, 10 (11), p. 149.
- Brown, C.M. (1994). Understanding . . . annual reports. *Black Enterprises*, 24 (10), p. 40.
- Browne, K.G. (1981). Technical writer on stage: The illustrated speech. *The Proceedings of the 28th International Technical Communication Conference* (pp. W14-17). Washington, DC: Society for Technical Communication.
- Buehler, M.F. (1980). Table design--When the writer/editor communicates graphically. *Proceedings of the 27th International Technical Communication Conference* (pp. G69-73). Washington, DC: Society for Technical Communication.

- Burnhill, P., Hartley, J., & Young, M. (1976). Tables in text. *Applied Ergonomics*, 7, 13-18.
- Burton, J.C. (Ed.) (1972). *Corporate financial reporting: Ethical and other problems*. New York: AICPA.
- Carosso, R.B. (1994). *Technical communication* (3rd ed). Belmont, CA: Wadsworth.
- Carter, R., Day, B., & Meggs, P. (1985). *Typographic design: Form and communication*. New York: Van Nostrand Reinhold.
- Chambers, J. M. (1973). *Graphical methods for data analysis*. Boston: Duxbury.
- Chang, L.S., Most, K.S., & Brain, C.W. (1983). The utility of annual reports: An international study. *Journal of International Business Studies*, 14 (1), 63-84.
- Clements, W., & Waite, R.G. (1983). *Guide for beginning technical editors*. Washington, DC: Society for Technical Communication.
- Cleveland, W.S. (1984b). Graphs in scientific publications. *American Statistician*, 38 (4), 261-269.
- Cleveland, W.S. (1994). *Elements of Graphing Data*. Murry Hill, NJ: AT&T Bell Laboratories.
- Cleveland, W.S., & McGill, M.E., eds. (1988). *Dynamic graphics for statistics*. Pacific, CA: Wadsworth & Brooks/Cole Advanced Books and Software.
- Craig, J. (1980). *Designing with type: A basic course in typography* (rev. ed.). New York: Watson-Guptill.
- Crawley, C.R. (1994). From charts to glyphs: Rudolf Modley's contribution to visual communication. *Technical Communication*, 41 (1), 20-25.
- Crow, W.C. (1986). *Communication graphics*. Englewood Cliffs, N.J.: Prentice-Hall.
- Crowe, N. (1984). *Visual notes for architects and designers*. New York: Van Nostrand Reinhold.

- Cury, R. (1979). Visual/graphic aids for the technical report. *Journal of Technical Writing and Communication*, 9, 287-291.
- Dardenne, P. (1977). Emerging trends in annual reports. *Public Relations Journal*, 33 (9), 8, 48.
- Dean, P.W. (1980). High-quality computer graphics for publications. *Proceedings of the 27th International Technical Communication Conference* (pp. G53-62). Washington, DC: Society for Technical Communication.
- Deatherage, J.S. (1976). Symbolism-- A visual language. *Proceedings of the 24th International Technical Communication Conference* (pp. 320-322). Washington, DC: Society for Technical Communication.
- Dever, S. (1980). Mason award winners for 1980: Annual reports and the human approach. *Personnel Administrator*, 25 (7), 63-67.
- Dever, S. (1981). The individual within the corporation. *Personnel Administrator*, 26 (7), 60-63.
- Dinsmore, W.H. (1965). Dear stockholders--Everything looks rosy (annual reports). *Harpers Magazine*, 230 (1378), pp. 133-136, 138.
- Doblin, J. (1980b). A structure for nontextual communications. In Kolers, P.A., Wrolstad, M.E., and Bouma, H. (Eds.), *Processing of visible language 2* (pp. 89-111). New York: Plenum.
- Dobson, M.W. (1980). The acquisition and processing of cartographic information: Some preliminary experimentation. In Kolers, P.A., Wrolstad, M.E., and Bouma, H. (Eds.), *Processing of visible language 2* (pp. 2921-304). New York: Plenum.
- Dondis, D.A. (1973). *A primer of visual literacy*. Cambridge, MA: MIT Press.
- Duchastel, P.C. (1980). Research on illustration in texts. *Educational Communication and Technology Journal*, 28, (4), pp. 283-287.

- Dwyer, F.M. (1970). Exploratory studies in the effectiveness of visual illustration. *AV Communication Review*, 18, 235-250.
- Dwyer, F.M. (1972). *A guide for improving visualized instruction*. State College, PA: State College Learning Services.
- Dwyer, F.M. (1978). *Strategies for improving visual learning*. State College, PA: Learning Services.
- Dwyer, F.M., (Ed.). (1987). *Enhancing visualized instruction: Recommendations for practitioners*. State College, PA: Learning Services.
- Eberwein, J.L., & Mobley, J.W. (1970). Technical communication by illustrations. *Proceedings of the 17th International Technical Communication Conference* (pp. G1-1:1-4). Washington, DC: Society for Technical Communication.
- Emerson, F.B. (1987). *Technical writing*. Boston: Houghton Mifflin.
- Executive file: Putting a happy face on the awful truth. (1990). *Business Month*, 135 (6), p. 25.
- Faltermayer, E. (1993). Poised for a comeback. *Fortune*, 127 (8), pp. 174-183.
- Felker, D.B., Pickering, F., Charrow, V.R., Holland, V.M., & Redish, J.C. (1981). *Guidelines for document designers*. Washington, DC: American Institutes for Research.
- Ferris, S.P. (1993). Business, management & labor: How to profit from reading annual reports by Richard B. Loth. *Choice*, 31 (4), p. 643.
- Ferstel, J. W. (1989). Annual reports, brochures, and newsletters. In C. Sides (Ed.), *Technical and business communication: Bibliographic essays for teachers and corporate trainers*. (pp. 223-240). Urbana, IL: NCTE.
- Fienberg, S.E. (1979). Graphical methods in statistics. *The American Statistician*, 33, 165-178.
- The 50th annual report awards competition. (1990). *Financial World*, 159 (23), pp. 52-65.

- Financial World presents the 47th annual report awards. (1987). *Financial World*, 156 (22), pp. 40-42, 103-114.
- Fisher, K.L. (1988). If it's too complicated, forget it. *Forbes*, 142 (7), p. 202.
- Fiske, H. (1982). *Introduction for communication studies*. New York: Methuen.
- FitzPatrick, P.J. (1962). The development of graphic presentation of statistical data in the United States. *Social Science*, 37, 203-14.
- Foote, C.S. (1983). Put more muscle in your annual report. *Financial Executive*, 51 (3), pp. 34-36.
- 48th annual report awards. (1988). *Financial World*, 157 (23), pp. 56-78.
- Foster, L.O. (1968). *Understanding financial statements and corporate annual reports* (rev. and enl. ed.). Philadelphia: Chilton.
- Fowler, J.E. (1977). The many facets of association annual reports. *Public Relations Journal*, 33 (9), 20-22.
- Franken, R.E., & Rowland, G.L. (1979). Nature and the representation for picture-recognition. *Perceptual and Motor Skills*, 49, 619-629.
- Frech, L. (1991). Annual reports: More than just financial information. *Industrial Photography*, 40 (11), pp. 24-7, 30.
- Frey, A.H., & Eichert, E.S., Jr. (1978). An evaluation of holograms as training and job aids. *Human Factors*, 20, 661-670.
- Gable, G. (1993). Playing the numbers game. *Publish*, 8 (12), pp. 23-27.
- Gibby, J.S. (1969). *Technical illustration* (3rd ed.). Chicago: American Technical Society.
- Gibson, J. (1966). A theory of pictorial presentations. In G. Keys (Ed.), *Sign, Image, and Symbol* (pp. 92-107). New York: G. Braziller.
- Giesecke, F.E., Mitchell, A., Spencer, H.C., Hill, I.L., Loving, R.O., & Dygdon, J.T. (1981). *Engineering graphics* (3rd. ed.). New York: McMillan.

- Glenn, J. (1987). Can flow charts be overdone? *Technical Communication*, 34, 172.
- Golen, S., Pearce, C.G., & Figgins, R. (1985). *Report writing for business and industry*. New York: Wiley.
- Gorman, D. (1973). Effects of varying pictorial detail and presentation strategy on concept formation. *AV Communication Review*, 21, 337-350.
- Goss, B. (1982). *Processing communication: Information processing in intrapersonal communication*. Belmont, CA: Wadsworth.
- Gottlieb, C. (1988). Annual reports as museum pieces. *Fortune*, 118 (3), p. 9.
- Gould, C.R. (1968). Legibility slide rule. *Proceedings of the 15th International Technical Communication Conference* (pp. G19: 1-4). Washington, DC: Society for Technical Communication.
- Gross, A.G. (1983). A primer on tables and figures. *Journal of Technical Writing and Communication*, 13, 33-55.
- Guidry, N., & Frye, K. (1968). *Graphic communication in science-- A guide to format, techniques, and tools*. Washington, DC: National Science Teachers Association.
- Haber, R.N., ed. (1968). *Contemporary theory and research in visual perception*. New York: Holt.
- Haber, R.N. (1969). *Information processing approaches to visual perception*. New York: Holt.
- Haber, R.N. (1970). How we remember what we see. *Scientific American*, 222, 5, pp. 104-112.
- Hall, P. (1986). Financial World presents the 46th annual report awards. *Financial World*, 155 (23), pp. 23-50.
- Hammet, B.F., & Illick, P.M. (1971). Visual literacy: A perceptual discipline. *Journal of Technical Writing and Communication*, 1, 255-266.

- Harris, J.S. (1978). On expanding the definition of technical writing. *Journal of Technical Writing and Communication*, 8, 133-138.
- Harris, R.B. (1984). 1984 annual report awards: The art of corporate communication. *Financial World*, 153 (23), 38-43.
- Hart, R.A. (1978). The psychological basis of iconic messages: A means of developing a visual language and effective communication with TV and film. *Proceedings of the 25th International Technical Communication Conference* (pp. 171-176). Washington, DC: Society for Technical Communication.
- Hartley, J. (1981). Eighty ways of improving instructional text. *IEEE Transactions of Professional Communication*, PC-24, 17-27.
- Hartley, J. (1985a). Current research on text design. *Scholarly Publication*, 16, (4), 355-368.
- Hartley, J., Young, M., & Burnhill, P. (1975). On the typing of tables. *Applied Ergonomics*, 6, 39-42.
- Haufler, J.H. (1965). The annual report--Opportunity for the technical writer. *Proceedings of the 12th Annual Convention on the Society of Technical Writing Professionals*. Washington, DC: Society of Technical Writing Professionals.
- Haus, V. & Jereb, B. (1992). Creating useful illustrations. In P.M Rubens (Ed.), *Science and technical writing: A manual of style* (pp 307-325). New York: H. Holt.
- Hawkins, D.F. (1986). *Corporate financial reporting and analysis*. Homewood, IL: Dow Jones-Irwin.
- Hearn, M.J. (1970). Seeing is believing--or is it? *Proceedings of the 17th International Technical Communication Conference* (pp. G6-4:1-6). Washington, DC: Society of Technical Communication.

- Heath, R.L. & Phelps, G. (1984). Annual reports II: Readability of reports vs. business press. *Public Relations Review*, 10 (2), 56-62.
- Hector, G. (1989). Cute tricks on the bottom line. *Fortune*, 119 (9), pp. 193-200.
- Heiken, J.H. (1987). Producing an annual report: A triumph of planning. *Proceedings of the 34th International Technical Communication Conference* (pp. WE 18-21). Washington, DC: Society for Technical Communication.
- Herdeg, Walter, (Ed.). (1976). *Graphis diagrams: The graphic visualization of abstract data*. Zurich: The Graphis Press.
- Hermann, J. (1981). Questioning the slick but tiresome traditions of annual report design. *Industrial Design*, 28 (2), 40-45.
- Herrstrom, D.S. (1984). Technical writing as mapping description onto diagram: The graphic paradigms of explanation. *Journal of Technical Writing and Communication*, 14, 223-240.
- Hershman, A. (1975). And now: The "gutsy" annual report. *Dun's Review*, 105 (3), 53-55,88,90.
- Hershman, A., & Knecht, G.B.(1981). The costly new look in annual reports. *Dun's Review*, 117 (6), 62-65.
- Hirsch, M.L., Anderson, R., & Gabriel, S. (1994). *Accounting and communication*. Cincinnati, OH: South-Western.
- Hoaglin, D.C., Mosteller, F., & Tukey, J.W. (Eds.). (1985). *Exploring data tables, trends, and shapes*. New York: Wiley.
- Hochberg, J.E. (1978). *Perception*. Englewood Cliffs, NJ: Prentice-Hall.
- Hofmann, A. (1965). *Graphics design manual: Principles and practices*. New York: Van Nostrand Reinhold.
- Holliday, W.G. (1975). The effects of verbal and adjunct pictorial-verbal information in science instruction. *Journal of Research in Science Teaching*, 12, 77-82.

- Holliday, W.G. (1976). Teaching verbal chains using flow diagrams and texts. *AV Communication Review*, 24, 63-78.
- Holliday, W.G., Brunner, L.L., & Donais, E.L. (1977). Differential cognitive and affective responses to flow diagrams in science. *Journal of Research in Science Teaching*, 14, 129-138.
- Hornbeck, R. (1986). Common cognition mistakes in technical writing. *Proceedings of the 33rd International Technical Communication Conference* (pp. 315-317). Washington, DC: Society for Technical Communication.
- Houlehen, R. (1975, September 22). Writing reports that communicate. *Industry Week*, p. 46.
- Houp, K.W., & Pearsall, T.E. (1988). *Reporting technical information* (6th ed.). New York: Macmillan.
- How Sun Oil Company spruced up its annual report. (1956). *Industrial Marketing*, 41 (8), 140-141.
- Huff, D. (1954). *How to lie with statistics*. New York: Norton.
- Huff, D. (1980). How to lie with statistics. In K.J. Harty (Ed.), *Strategies for business and technical writing* (pp. 241-248). New York: Harcourt.
- Hurlburt, A. (1989). *Layout: The design of the printed page*. New York: Watson-Guptill.
- Huttenlocker, J. (1968). Constructing spatial images: A strategy in reasoning. *Psychological Review*, 75, 550-560.
- Jacob, R. (1990). Hanging tough in a rough year. *Fortune*, 121 (9), pp. 338-340.
- Kagy, F.O. (1978). *Graphic arts*. South Holland, IL: Goodheart-Wilcox.
- Kang, G.M. (1993, April 12). It's corporate America's spring hornblowing festival. *Business Week* (Industrial/Technology Edition), n3314, p. 31.
- Kellman, M. (1991, May 13). Annual challenge. *Barron's*, p. 17.

- Kennedy, D.L. (1980). *How to buy printing*. Washington, DC: Society for Technical Communication.
- Keyes, E. (1987). Information design. *IEEE Journal of Professional Communication*, 30, 32-37.
- Kosslyn, S.M. (1975). Information representation in visual images. *Cognitive Psychology*, 7, 341-370.
- Kostelnick, C. (1988a). Designing for readability: An index for evaluating the visual language of technical documents. *Proceedings of the 35th International Technical Communication Conference* (pp. VC 44-47). Washington, DC: Society for Technical Communication.
- Kostelnick, C. (1989) How readers perceive pictures: Generating design guidelines from empirical research. *Proceedings of the 36th International Technical Communication Conference* (pp. RT 47-50). Washington, DC: Society for Technical Communication.
- Kurtz, D.L. & Spitz, A.E. (1974). *An academic writer's guide to publishing in business and economic journals* (2nd ed.). Ypsilanti, MI: Eastern Michigan University.
- Lansner, K. (1983). And the winners are *Financial World*, 152 (20), 49-73.
- Laseau, P. (1986). *Graphic problem solving for architects and designers* (2nd ed.). New York: Van Nostrand Reinhold.
- Laseau, P. (1989). *Graphical thinking for architects and designers* (2nd ed.). New York: Van Nostrand Reinhold.
- Laseau, P. (1991). *Architectural drawing: Options for design* (1st ed.). New York: Design Press.
- Lasky, J. (1992). Print's annual report on annual reports. *Print: America's Graphic Design Magazine*, 46 (1), pp. 110-117.

- Lasky, J. (1993). Print's annual report on annual reports. *Print: America's Graphic Design Magazine*, 47 (1), pp. 74-81.
- Lasky, J. (1994). Print's annual report on annual reports. *Print: America's Graphic Design Magazine*, 48 (1), pp. 92-99.
- Lesikar, R.V. (1982). *Basic business communication*. Homewood, IL: Irwin.
- Lesikar, R.V. (1984). *Business communication: Theory and application* (5th ed.). Homewood, IL: Irwin.
- Levens, A.S. (1962). *Graphics: An introduction to conceptual design*. New York: Wiley.
- Levin, J., & Lesgold, A. (1978). On pictures in prose. *Educational Communication and Technology*, 26, 233-243.
- Levy, R. (1981). Televising annual reports. *Dun's Review*, 118 (5), 105-6.
- Lewis, R.A. (1993). Annual reports at a crossroads. *Communication Arts*, 34 (8), pp. 18-20.
- Lierman, F.A., & Geiser, J.A. (1979). Good graphics for proposals and similar short lead-time publications. *Proceedings of the 26th International Technical Communication Conference* (pp. V57-61). Washington, DC: Society for Technical Communication.
- Linsley, A.T., & Hawkins, G.J. (1948). *How to draw technical illustrations*. New York: The Studio.
- Lockwood, A. (1969). *Diagrams*. New York: Watson-Guptill.
- Lutz, W.D. (1983). Corporate doublespeak: Making bad news look good. *Business and Society Review*, 44, 20-25.
- Macdonald-Ross, M. (1977). How numbers are shown. *AV Communication Review*, 25, 359-409.
- Madden, S.J., & Slovak, J. (1987). A year of pain and promise. *Fortune*, 115 (9), 359-361.

- Magnan, G. (1961). *Visual art for industry*. New York: VanNostrand.
- Magnan, G. (1976). George Magnan on the world of technical illustrations. *Graphics Today, 1*, 28-31.
- Mailey, T.F. (1979). The psychology of visual perception: Is cueing important in concept formation? *Proceedings of the 26th International Technical Communication Conference* (pp. V62-64). Washington, DC: Society for Technical Communication.
- Mason, D.E. (1967). A guide to good charts. *Technical Communication, 14*, 26-27.
- Massin. (1970). *Letter and image*. New York: Van Nostrand Reinhold.
- Mellman, M. (1995). *Accounting for effective decision making*. Burr Ridge, IL: Irwin Professional Publications.
- Miller, G.A. (1956). The magical number seven, plus or minus two: Some limits on our capacity for processing information. *Psychological Review, 63*, 81-97.
- Modley, R. (1976). *Handbook of pictorial symbols*. New York: Dover.
- Modley, R., & Lowenstein, D. (1952). *Pictographs and graphs--How to make and use them*. New York: Harper.
- Morgan, J., & Welton, P. (1986). *See what I mean: An introduction to visual communication*. Baltimore, MD: E. Arnold.
- Moskowitz, M. (1983). The 1982 annual reports: A potpourri for the corporate watchdog. *Business and Society Review, 46*, 20-25.
- Muller-Brockman, J. (1971). *A history of visual communication*. New York: Hastings.
- Munce, H. (1982). *Graphics handbook*. Cincinnati, OH: North Light Books.
- Nelson, R.A., & Salvidge, L.R., Jr. (1975). A chart for teaching about manufacturing. *Man/Society/Technology, 35*, 79.
- Nelson, R.P. (1987). *Publication design* (4th ed.). Dubuque, IA: W.C. Brown.
- The 1994 annual report awards competition. (1994). *Financial World, 163* (23), pp.72-78.

- Northart, L.J. (1979). What they're saying about annual reports. *Public Relations Journal*, 35 (8), 10-15.
- Owenby, P.H. (1992). Four design factors affecting visuals used for business presentations. *Proceedings of the 39th International Technical Communication Conference* (pp. 229-232). Washington, DC: Society for Technical Communication.
- Palframan, B. (1992). Annual reports-Examining the best. *Communication World*, 9 (9), pp. 34-37.
- Pauley, S.E., & Riordan, D.G. (1987). *Technical report writing today* (3rd ed.). Boston: Houghton-Mifflin.
- Peeck, J. (1974). Retention of pictorial and verbal content of a text with illustrations. *Journal of Educational Psychology*, 66, 880-888.
- Pinkham, C.B. (1981). Producing cost-effective publications with the aid of WP. *Proceedings of the 28th International Technical Communication Conference* (pp. A64-68). Washington, DC: Society for Technical Communication.
- Potter, R.A. (1977). New look at the annual report. *Technical Communication*, 24 (2), 4-6.
- Price, J., Martuza, V., & Crouse, J. (1974). Construct validity of test items measuring acquisition of information from line graphs. *Journal of Educational Psychology*, 66, 152-156.
- Professional investors critical of annual reports. (1985). *Journal of Accountancy*, 159 (1), 28, 32.
- Public reporting of corporate financial forecasts*. (1974). New York: Commerce Clearinghouse.
- Pyeatt, A.D. (1960). *Technical illustration* (2nd ed.). New York: Higgins.

- Randhawa, B.S., & Coffman, W.E., (Eds.). (1978). *Visual learning and thinking and communication*. New York: Academic Press.
- Raspberry, R.W. (1978). A quick and simple guide to understanding annual reports. *ABCA Bulletin*, 41 (2), 34-36.
- Rehe, R. (1972). *Type and how to make it most legible*. Carmel, IN: Design Research International.
- Reilly, S.S., & Roach, J.W. (1984). Improved visual design for graphic display. *IEEE Computer Graphics and Applications*, 4 (2), 42-51.
- Rezaee, Z. & Porter, G.L. (1988). Is shorter better? *Journal of Accountancy*, 165 (5), 42-46, 52, 54.
- Richards, C., & Johnson, R. (1980). Graphic codes for flowcharts. *Information Design Journal*, 1, 261-270.
- Riggleman, J.R. (1936). *Graphic methods for presenting business statistics*. New York: McGraw-Hill.
- Rigney, J.W., & Lutz, K.A. (1976). Effect of graphic analysis of concepts in chemistry on learning and attitude. *Journal of Educational Psychology*, 68, 305-311.
- Rimer, I.I. (1975). How the non-profits do it. *Public Relations Journal*, 31 (9), 24-25.
- Rising, James, et al. (1977). *Engineering graphics: Communication analysis, creative design* (5th ed.). Dubuque, IO: Kendall/Hunt.
- Rodman, L. (1980). How graphics affect technical discourse. *Proceedings of the 31st Conference on College Composition and Communication*, 198-203.
- Rogers, A.C. (1961). *Graphic charts handbook*. Washington, DC: Public Affairs Press.
- Rogers, A. & Sookdeo, R. (1992). It was the worst of years. *Fortune*, 125 (8), pp. 212-217.
- Rosenthal, H.C. (1980). Scorecard for 1979 annual reports. *Public Relations Journal*, 36 (8), pp. 14-16.

- Rothman, A. (1990, April 30). And now, from Fantasyland . . . It's annual report time. *Business Week* (Industrial/Technology Edition), p. 32.
- Ruark, H. C. (1988). Review of 1987 annual reports. *Industrial Photography*, 37 (11), pp. 34-8.
- Rude, C. (1988). Format in instructional manuals: Application of existing research. *Iowa State Journal of Business and Technical Communication*, 2, 63-77.
- Salomon, G. (1994). *Interaction of media, cognition, and learning: An exploration of how symbolic forms cultivate mental skills and affect knowledge acquisition*. Hillsdale, NJ: Lawrence Erlbaum Associates.
- Satterthwaite, L. (1977). *Graphics: Skills, media, and materials* (3rd ed.). Dubuque, IO: Kendall/Hunt.
- Schmid, C.F. (1954). *Handbook of graphic presentation*. New York: Ronald.
- Schmid, C.F. (1983). *Statistical graphics: Design, principles, and practices*. New York: Wiley.
- Selby, P.H. (1976). *Interpreting graphs and tables*. New York: Wiley.
- Shell, A. (1991). Designing messages: How annual reports reflect your image. *Public Relations Journal*, 47 (10), 14-17.
- Sherman, T.A., & Johnson, S.S. (1983). *Modern technical writing* (4th ed.). Englewood Cliffs, NJ: Prentice-Hall.
- Smart, L.E., & Arnold, S. (1947). *Practical rules for graphic presentation of business statistics*. Columbus, OH: Bureau of Business Research/Ohio State University.
- Smedley, A.B. (1975). Is the annual report a corporate dinosaur? *Public Relations Journal*, 31, (9), 21-23.
- Smith, F.R. (1973). Editing technical illustrations. *Journal of Technical Writing and Communication*, 3, 177-204.

- Spangenberg, R.W. (1971). Structural coherence in pictorial and verbal displays. *Journal of Educational Psychology*, 62, 514-520.
- Spear, M.E. (1952). *Charting statistics*. New York: McGraw-Hill.
- Spence, W.P. (1984). *Engineering graphics*. Englewood Cliffs, NJ: Prentice-Hall.
- Strang, H. (1973). Pictorial and verbal media in self-instruction of procedural skills. *AV Communication Review*, 21, 225-232.
- Taylor, A. III (1986). Thin profits in a lean, mean year. *Fortune*, 113 (9), 175-180.
- Tebeaux, E. (1981). Using printouts to teach analysis and graphics. *Journal of Technical Writing and Communication*, 11, 13-22.
- Teitelbaum, R.S. (1994). Hats off! It was a heck of a year. *Fortune*, 129 (8), pp. 210-217.
- Teitelbaum, R.S. (1995). A boom in profits. *Fortune*, 131 (9), pp. 226-227.
- Thiel, P. (1983). *Visual awareness and design: An introductory program in conceptual awareness, perceptual sensitivity, and basic design skills*. Seattle: U. of Washington Press.
- Thomas, T.A. (1978). *Technical illustration* (3rd ed.). New York: McGraw-Hill.
- Tinker, M.A. (1965). *Bases for effective reading*. Minneapolis: University of Minnesota Press.
- Top reports of 1985. (1986). *Institutional Investor*, 20 (9), 278-80, 283-84.
- Tufte, E.R. (1990). *Envisioning information*. Cheshire, CT: Graphics Press.
- Turpin, E.R. (1980). Annual reports: A fertile field for imaginative graphics. *Proceedings of the 27th International Technical Communication Conference* (p. G33). Washington, DC: Society for Technical Communication.
- Twyman, M. (1982). The graphic presentation of language. *Information Design Journal*, 3, 2-22.

- Underwood, J.D.M. (1980). The influence of texture gradients on relief interpretation from isopleth maps. In Kolers, P.A., Wrolstad, M.E., and Bouma, H. (Eds.), *Processing of visible language 2* (pp. 279-290). New York: Plenum.
- Vernon, M.D. (1953). Presenting information in diagrams. *AV Communication Review*, 1, 147-158.
- Vitz, P.C. (1966). Preference for different amounts of visual complexity. *Behavioral Sciences*, 11, 105-114.
- Vogt, H.E. (1984). Wordless instructions: Say it with pictures. *Proceedings of the 31st International Technical Communication Conference* (pp. VC23-26). Washington, DC: Society for Technical Communication.
- Vogt, H.E. (1986). Graphic ways to eliminate problems associated with translating technical documentation. *Proceedings of the 33rd International Technical Communication Conference* (pp. 330-333). Washington, DC: Society for Technical Communication.
- Waller, R. (1982). Text as diagram: Using typography to improve access and understanding. In D.H. Jonassen (Ed.), *The technology of text: Principles for structuring, designing, and displaying text* (pp. 167-192). Englewood Cliffs, NJ: Educational Technology Publications.
- Watzmann, S. (1986). Graphics and formats: Making it work by design. *Proceedings of the 33rd International Technical Communication Conference* (pp. 17-20). Washington, DC: Society for Technical Communication.
- Weiss, G. (1987, March 23). Reading between the lines of an annual report. *Business Week* (Industrial/Technology Edition), pp. 164-165.
- White, J.V. (1983). *Mastering graphics: Design and production made easy*. New York: Bowker.

- White, J.V. (1984). *Using charts and graphs: 1000 ideas for visual persuasion*. New York: Bowker.
- Wilde, J., & Wilde, R. (1991). *Visual literacy*. New York: Watson-Guptill.
- Wilde, R. (1986). *Problems, solutions: Visual thinking for graphic communicators*. New York: Van Nostrand Reinhold.
- Williams, T.R. (1993). What's so different about visuals? *Technical Communication*, 40, 669-676.
- Winn, W.D. (1980). The effect of block-word diagrams on the structuring of concepts as a function of general ability. *Journal of Research in Science Teaching*, 17, 201-211.
- Winn, W.D. (1981). The effect of attribute highlighting and spatial organization and classification. *Journal of Research in Science Teaching*, 18, 23-32.
- Winn, W.D. (1982). The role of diagrammatic representation in learning sequences, identification and classification as a function of verbal and spatial ability. *Journal of Research in Science Teaching*, 19, 79-90.
- Woodard, W. (1989). How to read financial reports. *Black Enterprise*, 19 (10), pp.90-94.
- Woudhuysen, J. (1990, September). An insight into good results. *Management Today*, p. 30.
- Wright, P. (1968). Using tabulated information. *Ergonomics*, 11, 331-343.
- Wright, P. (1971). Writing to be understood: Why use sentences? *Applied Ergonomics*, 2, 207-209.
- Wright, P. (1977). Decision-making as a factor of the ease of using numerical tables. *Applied Ergonomics*, 20, 91-96.
- Wright, P. (1980). Strategy and tactics in the design of forms. *Visible Language*, 15, 151-193.
- Wright, P. (1981a). Five skills technical writers need. *IEEE Transactions on Professional Communication*, PC-24, 10-16.

- Wright, P. (1981b). Tables in text: The subskills needed for reading formatted information. In L.J. Chapman (Ed.), *The reader and the text* (pp. 60-69). Proceedings of the 17th UKRA Conference, Warwick. London: Heineman.
- Wright, P., & Bernard, P. (1975). Effects of "more than" and "less than" decisions on the use of numerical tables. *Journal of Applied Psychology*, 60, 606-611.
- Wright, P., & Fox, K. (1970). Presenting information in tables. *Applied Ergonomics*, 1, 234-242.
- Wright, P., & Fox, K. (1972). Explicit and implicit tabulation formats. *Applied Ergonomics*, 15, 175-187.
- Wright, P., & Reid, F. (1973). Written information: Some alternatives for prose. *Journal of Applied Psychology*, 57, 160-166.
- Yankee, H.W. (1985). *Engineering graphics*. Boston: PWS Engineering.
- Yarbus, A.L. (1967). *Eye movements and vision*. New York: Plenum.
- Zimmerman, D.E., & Clark, D.G. (1987). *The Random House guide to technical and scientific communication*. New York: Random.
- Zusne, L. (1970). *Visual perception of form*. New York: Academic Press.

APPENDICES

APPENDIX A: GLOSSARY OF TERMS

APPENDIX B: SAMPLE SPREADSHEET USED FOR DATA COLLECTION

APPENDIX C: INTRODUCTION TO TABLES

APPENDIX D: TABLES 1-10. SUMMARY DATA FOR SELECTED COMPANIES

APPENDIX E: TABLE 1. TOTAL NUMBER OF VISUAL ELEMENTS BY COMPANY AND YEAR

APPENDIX F: TABLES 1-3. SUMMARIES OF NUMBERS OF TABLES, PHOTOGRAPHS, AND FIGURES BY YEAR AND COMPANY

APPENDIX G: TABLES 1-11. SUMMARIES OF TYPES OF FIGURES BY COMPANY, YEAR, AND ANNUAL REPORT SECTION

APPENDIX H: TABLES 1-10. SIZES OF ANNUAL REPORT PHOTOGRAPHS BY COMPANY, YEAR, AND ANNUAL REPORT SECTION

APPENDIX I: TABLES 1-10. SIZES OF ANNUAL REPORT FIGURES BY COMPANY, YEAR, AND ANNUAL REPORT SECTION

APPENDIX J: TABLES 1-10. SUBJECTS OF ANNUAL REPORT TABLES BY COMPANY, YEAR, AND ANNUAL REPORT SECTION

APPENDIX K: TABLES 1-10. SUBJECTS OF ANNUAL REPORT PHOTOGRAPHS BY COMPANY, YEAR, AND ANNUAL REPORT SECTION

APPENDIX L: TABLES 1-10. SUBJECTS OF ANNUAL REPORT FIGURES BY COMPANY, YEAR, AND ANNUAL REPORT SECTION

APPENDIX M: TABLES 1-10. COLORS USED IN ANNUAL REPORT FIGURES BY COMPANY, YEAR, AND ANNUAL REPORT SECTION

APPENDIX N: TABLE 1. CONVERSION OF FIGURE COLORS TO PANTONE® COLOR MATCHING SYSTEM

APPENDIX A: GLOSSARY OF TERMS

GLOSSARY OF TERMS

Annual report-- printed document prepared by businesses to review and report to their stockholders and other interested parties the financial activities for the previous fiscal year. The annual report usually has five standard parts: financial highlights, letter to the stockholders, narrative or scope of operations, management's discussion and analysis, and board of directors and officers.

Bad financial year-- a corporate fiscal year in which the company lost money for whatever reasons. A bad financial year may include a year that was drastically improved from the previous year but still reflected a net loss.

Bar graph -- graph in which horizontal bars represent the amounts portrayed.

Charts--symbolic portrayals of processes and organizations, such as flow or organization charts. As used here, the term is not synonymous with the term "graph" because graph refers to portrayals of quantitative information by lines, bars, circles, etc.

Column graph -- graph in which vertical bars represent the amounts portrayed.

Design--nonquantitative aspects of preparing graphics that the writer can manipulate, such as lettering (font and typeface), grids, ticks, scales, scale breaks, shading, and color. As used here, design does not include matters related to placement of visual elements on the page; placement falls under layout.

Deviate or bilateral bar/column graph -- graph in which a center zero line allows for showing positive numbers to the right/top and negative numbers to the left/bottom.

Drawings-- representations of the appearance of an object, including the ability to show sketched concepts, layers, internal components, or disassembled parts of an object.

Figures-- visual elements that include geometrical symbols and arrangements to help convey the data. As used here figures does not include tables, but does include graphs, charts, maps, pictogram, and drawings.

Flow chart -- chart which shows the steps and movement in a process.

Graphs-- displays of numerical data in a visual format. As here used, the term is not synonymous with the term "chart" which represents nonnumerical data.

Graphic communication-- any independent visual element used to convey information including tables, figures, and photographs. As used here, the term is synonomous with visual elements.

Histogram -- graph that is plotted similarly to column graphs with contiguous columns to compare two continuous variables.

Illustration-- drawing that represents a realistic view of people, objects, or places, but is not as realistic as a photograph.

Integration-- the process of incorporating graphic communication into the text so as to become an integral part.

Integrity-- the quality of being accurate. As used here it refers to the absence of distracting grids and patterns, and accuracy of labels, scales, and scale breaks.

Layout-- design of the page elements including text, graphic communication, headings, and any other component of the document that the writer can move or manipulate to change the overall appearance.

Line graph-- graph with x and y axes on which dependent and independent variables are plotted and then connected by a line to show trends or movements over time.

Maps-- graphics that offer quantitative information by comparing differences in geographical locations.

Multiple bar/column graph-- graph in which the bars or columns are grouped together to compare several items over a period of time.

100% bar/column graph-- graph in which the bars or columns are segmented with segments totaling 100 percent.

Organization chart -- chart which shows the interrelationships of employees, their levels of responsibility and authority.

Paired bar graph-- graph in which bars have their bases in the center of the graph with bars extending left and right to compare two different and distinct variables.

Photographs--exact representations of the appearance of something.

Pictogram-- graph which is designed similarly to bar or column graphs but uses picture symbols to represent the amounts rather than bars or columns.

Pie graph-- circular graph divided into sections to show relationships of the parts to the whole.

Readability--a subjective quality that reflects the relative ease with which a reader can read, understand, and use information presented either verbally or visually. As used here, it refers only to the surface elements as discussed by Fog. Based on the review of literature, no test currently exists for visual elements.

Rendering-- line drawing which represents the appearance of something which is not yet in existence.

Subdivided or segmented bar/column graph -- graph in which bars or columns are divided to show percentages, allowing comparisons of multiple elements.

Surface graph --a graph constructed similarly to a multiple line graph with each area of information shaded. The top line represents the whole while the lines below represent the components; this graph is also known as a band graph.

Tables-- displays of alpha or numeric information arranged in rows and columns.

Time line -- graphic which shows the stages and steps in a project and when each is to be completed.

Visual elements-- any element that incorporates geometric shapes and arrangements and/or pictorial representation of data, including tables, photographs, and figures. As used here, visual elements, visuals, and graphic communication are synonymous.

**APPENDIX B: SAMPLE SPREADSHEET USED FOR DATA
COLLECTION**

Table B-1. Spreadsheet for Recording Data from Annual Reports										
	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
Photo on cover										
# of colors										
Photo on inside cover										
# of colors										
Total number of photos										
Total number of tables										
Total number of figures										
Full page photos										
Double page photos										
Typography - serif or sans serif										
Financial Highlights Section										
# of photographs										
# of tables										
# of figures										
# of colors										
Intro/ref. to visuals										
relevant/clear captions										
placement of visual on page										
integrity of visuals										
Ltr. to stockholders										
# of photographs										
# of tables										
# of figures										
# of colors										
intro/ref. to visuals										
relevant/clear captions										
placement of visual on page										
integrity of visuals										
Scope of operations/narrative										
# of photographs										
# of tables										
# of figures										
# of colors										
intro/ref. to visuals										
relevant/clear captions										
placement of visual on page										
integrity of visuals										
Continued										

Table XXIII. Spreadsheet for Recording Data from Annual Reports Cont.										
	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
Mgmt's Discussion and Analysis										
# of photographs										
# of tables										
# of figures										
# of colors										
intro/ref. to visuals										
relevant/clear captions										
placement of visual on page										
integrity of visuals										
Board of Directors and Officers										
# of colors										
clearly labeled										
Group Pictures										
# of colors										
clearly labeled										
placement of visuals on page										
Specific types of graphics										
line graphs										
bar graphs										
column graphs										
pie graphs										
scatter graphs										
surface graphs										
100% bar/column graph										
paired bar/column graph										
grouped bars/column graph										
divided bar/column graph										
deviation bar/column graph										
pictogram										
histogram										
time line										
line drawing										
rendering										
organization chart										
flow chart										
maps										

APPENDIX C: INTRODUCTION TO APPENDIX TABLES

Introduction to Appendix Tables

The tables in the following appendices summarize the data collected and analyzed for this dissertation and include all ten companies for the ten years examined. The tables organize the data by companies and years, and for some by sections of the annual report. The following key provides explanations for abbreviations, necessary because of the large amounts of data to be summarized.

Key:	fc= full color	x= no	√= yes
	r=right	l=left	c=column
	p=page	- =none	s=serif
	ss=sans serif	t= text	gr= graphics
	dn= down	is=inside	os=outside
	T=top	B=bottom	M=middle
	-->= across	3d=three dimensional	v=various
	P=photos	f=figure	

Net Loss Years.

All net loss reports and relevant information are denoted by shading throughout the appendix tables.

No Data

Throughout the tables, the single hyphen, "-", indicates no data for that item in question. In other words, the item did not occur.

**APPENDIX D: TABLES 1-10. SUMMARY DATA FOR SELECTED
COMPANIES**

Table D-1. Summary of Data Collected for Alcoa, 1985-1994 (†=net loss)

	1985†	1986	1987	1988	1989	1990	1991	1992†	1993	1994
Photo on cover	√	x	√	√	x	√	√	√	x	x
# of colors	fc	-	b/w	fc	-	fc	fc	fc	-	-
Photo on inside cover	x	x	x	√	-	-	-	-	x	√
# of colors	-	-	-	fc	-	-	-	-	-	fc
Total number of photos	10	20	7	22	51	42	56	30	6	34
Total number of tables	8	8	10	8	6	10	8	17	13	11
Total number of figures	52	39	23	19	35	30	32	24	20	10
Full page photos	0	2	0	9	2	10	7	9	0	3
Double page photo	0	0	0	0	0	0	0	0	0	0
Financial Highlights Section	-	-	-	-	-	-	-	-	-	-
# of photographs	0	0	0	1	0	0	0	0	0	0
# of tables	1	1	1	1	1	1	1	2	1	1
# of figures	6	2	0	0	1	1	2	8	1	2
# of colors	10	5	-	fc	5	6	7	8	3	6
Intro/ref. to visuals	x	x	-	x	x	x	x	x	x	x
relevant/clear captions	√	√	√	√	√	√	√	√	√	√
placement of visual on page	t T, f B	TCr	T-->	Fp	*	tT,fBl	tT,fB	tT,fc	Blc	tT,fBr
integrity of visuals	√	√	√	√	√	√	√	√	√	√
Ltr. to stockholders	-	-	-	-	-	-	-	-	-	-
# of photographs	1	2	1	1	1	1	1	8	1	6
# of tables	0	0	0	0	0	0	0	1	0	0
# of figures	0	0	0	0	0	0	0	0	0	0
# of colors	fc	fc	b/w	fc	fc	fc	fc	fc	b/w	2 b/w
intro/ref. to visuals	x	-	x	x	x	x	x	x	x	x
relevant/clear captions	√	√	√	√	√	√	√	√	x	x
placement of visual on page	rpTlc	TCr	Cr r p	Fp	rp B r	F r p	l p r T	F p Cr	Cr B 2/3	rcTB
integrity of visuals	√	√	√	√	√	√	√	√	√	√
Scope of operations/narrative	-	-	-	-	-	-	-	-	-	-
# of photographs	8	16	6	20	50	24	40	16	5	28
# of tables	0	0	0	0	0	0	0	6	0	0
# of figures	8	26	10	0	14	8	9	6	5	0
# of colors	fc+16	fc+8	*2	fc	v	*3	*4	*5	b/w	fc&b/w
intro/ref. to visuals	1 of 16	x	x	x	x	6	x	x	x	x
relevant/clear captions	√	√	√	√	√	√	√	√	x	√
placement of visual on page	B-->,Tr	TCrIp,-->r	P Cr, f v	v					v	v
integrity of visuals	√	√	√	√	no#c	no#c	√	no#c	√	√
Typography- serif or sans serif	s,ss	s,ss	s,ss	s,ss	s,ss	s,ss	s,ss	ss	s	s,ss

*tT, fBr; *2 6 shades of blue & grey; *3 Pfc, figures 10; *4 Pfc,f7; *5 P4FC,f16; *6 fTr,PB2/3

Key: fc=full color, x=no, √=yes, r=right, l=left, c=column, p=page, s=serif, ss=sans serif,t=text, gr=graphics, dn=down, is=inside
T=top, Cr=center, M=middle, B=Bottom, -->=across, 3d=three dimensional, F=full, v=various, f=figures, t=tables, P=photos, os=outside

Continued

Table D-1. Summary of Data Collected for Alcoa, 1985-1994 Continued (†= net loss)

	1985†	1986	1987	1988	1989	1990	1991	1992†	1993	1994
Mgmt's Discussion & Analysis	-	-	-	-	-	-	-	-	-	-
# of photographs	0	0	0	0	0	14	14	0	0	0
# of tables	5	5	7	5	4	5	4	4	6	6
# of figures	35	10	11	17	10	18	19	8	4	6
# of colors	8	4	4	7	7	fc+14	Pfc,F7	15	4	4
intro/ref. to visuals	3 t	4 t	4 t	3 t	2 t	3 t	x	1 t	x	2 t
relevant/clear captions	√	√	√	√	√	√	√	√	√	√
placement of visual on page	f B -->	*7	f --> B	*7	osc	fB, P Cr	T -->, r c	r c	os c	*8)
integrity of visuals	√	no# c	no# c	strange	no# c	no# c	√	√	no# c	√
Board of Directors	-	-	-	-	-	-	-	-	-	-
Individual Pictures	-	-	-	-	-	-	-	-	-	-
# of colors	-	-	-	-	-	-	-	-	-	-
clearly labeled	-	-	-	-	-	-	-	-	-	-
Group Pictures	-	-	-	-	-	-	-	3	-	-
# of colors	-	-	-	-	-	-	-	fc	-	-
clearly labeled	-	-	-	-	-	-	-	√	-	-
placement of visuals on page	-	-	-	-	-	-	-	last page	-	-
full page photos	0	2	0	9	2	10	7	9	0	3
Specific types of graphics	-	-	-	-	-	-	-	-	-	-
line graphs	3	3	3	3	4	2	-	-	3	-
bar graphs	-	-	-	-	-	-	1	-	-	-
column graphs	24	5	8	8	10	10	7	10	3	3
pie graphs	3	7	2	1	5	5	3	3	1	2
scatter graphs	-	-	-	-	-	-	-	-	-	-
surface graphs	5	-	-	-	2	-	-	1	-	-
100% bar/column graph	2	-	-	-	-	-	-	-	-	-
paired bar/column graph	-	-	-	-	-	-	-	-	-	-
grouped bars/column graph	5 c	4 c	3 c	3 c	5 c	5 c	2 c	2c	-	2 c
divided bar/column graph	6 c	8 c	6 c	4 c	7 c	5 c	8 c	8 c	1 c	3 c
deviation bar/column graph	-	2 grouped	2 grouped	-	-	-	-	-	-	-
pictogram	2	2	-	-	-	-	4	-	-	-
histogram	-	-	-	-	-	-	-	-	-	-
time line	1	-	-	-	-	-	-	-	-	-
line drawing	-	-	3	-	2	3	5	-	11	-
rendering	-	-	-	-	-	-	-	-	-	-
organization chart	-	-	-	-	-	-	-	-	-	-
flow chart	-	-	3	-	-	-	-	-	-	-
spot map	-	-	1	-	1	-	2	-	-	-

*7 t/text, f --> B; *8 singles - r c T, 2 on p - T & B

Key: fc=full color, x=no, √=yes, r=right, l=left, c=column, p=page, s=serif, ss=sans serif, t=text, gr=graphics, dn=down, is=inside
T=top, Cr=center, M=middle, B=Bottom, -->=across, 3d=three dimensional, F=full, v=various, f=figures, t=tables, P=photos, os=outside

Table D-2. Summary of Data Collected for DuPont, 1985-1994 (†= net loss)

	1985	1986	1987	1988	1989	1990	1991	1992†	1993	1994
Photo on cover	-	√	x	x	√	√	√	√	√	√
# of colors	-	fc	-	-	fc	fc	fc	fc&b/w	b/w+yell	4*
Photo on inside cover	-	√	x	x	x	√	-	x	√	x
# of colors	-	fc	-	-	-	fc	-	-	fc	-
Total number of photos	18	11	39	22	21	37	30	29	10	43
Total number of tables	15	13	13	14	14	21	12	15	11	12
Total number of figures	25	19	30	21	21	22	23	26	19	11
Full page photos	-	8	0	0	4	0	6	5	7	0
Double page photo	-	-	-	-	-	-	-	-	-	-
Financial Highlights Section	-	-	-	-	-	-	-	-	-	-
# of photographs	0	0	0	0	0	0	0	0	0	0
# of tables	2	2	0	1	2	2	2	1	1	1
# of figures	9	0	2	0	1	1	0	1	0	0
# of colors	2	-	-	-	0.5	6	-	4	-	-
Intro/ref. to visuals	x	x	x	x	x	x	-	x	x	x
relevant/clear captions	√	√	√	√	√	√	√	√	√	√
placement of visual on page	f --> B	across p	B & T	T Cr	is c	f B	across	TCr,Br	T2/3p	Cr
integrity of visuals	√	√	√	√	√	√	√	√	√	√
Ltr. to stockholders	-	-	-	-	-	-	-	-	-	-
# of photographs	2	3	2	1	4	3	3	1	3	3
# of tables	0	0	0	0	0	0	0	0	0	0
# of figures	0	0	0	0	0	0	0	0	0	1
# of colors	fc	fc	fc	fc	fc	fc	fc	fc	b&w	P 2, f 6
intro/ref. to visuals	x	x	x	x	x	x	x	-	x	x
relevant/clear captions	√	√	√	√	√	√	√	√	√	√
placement of visual on page	os c	v	B is c	rcrpCr	Cr	l c	B T	Blcrp	FP T1/2lp	rprc
integrity of visuals	√	√	√	√	√	√	√	√	√	√
Scope of operations/narrative	-	-	-	-	-	-	-	-	-	-
# of photographs	16	8	34	21	17	34	27	28	7	40
# of tables	0	0	0	1	0	0	0	5	0	0
# of figures	15	15	24	16	12	17	18	20	15	10
# of colors	fc+2	fc+2	fc+5	fc+6	fc+4	fc+7	fc+8	5	18	6
intro/ref. to visuals	x	x	x	x	x	x	x	√	x	x
relevant/clear captions	√	√	√	√	√	√	√	√	√	√
placement of visual on page	os c rp	lcrp,ph=lp	lcB-->	v	rc	fbend	v	√	v	Trc
integrity of visuals	√	√	√	√	√	√	√	√	√	√
Typography- serif or sans serif	s,ss	s	s,ss	s,ss	s,ss	s	s,ss	s,ss	ss	s,ss

* in different parts

Key: fc=full color, x=no, √=yes, r=right, l=left, c=column, p=page, s=serif, ss=sans serif,t=text, gr=graphics, dn=down, is=inside
T=top, Cr=center, M=middle, B=Bottom, -->=across, 3d=three dimensional, F=full, v=various, f=figures, t=tables, P=photos, os=outside

Continued

Table D-2. Summary of Data Collected for DuPont, 1985-1994 Continued (†= net loss)

	1985	1986	1987	1988	1989	1990	1991	1992†	1993	1994
Mgmt's Discussion & Analysis	-	-	-	-	-	-	-	-	-	-
# of photographs	0	0	0	0	0	0	0	0	0	0
# of tables	2	2	2	2	2	10	1	9	1	1
# of figures	1	4	6	5	8	4	5	5	3	0
# of colors	3	8	8	6	10	3	4	3	4	-
intro/ref. to visuals	x	x	x	x	x	x	x	x	x	x
relevant/clear captions	√	√	√	√	√	√	√	√	√	√
placement of visual on page	Trc	BCrisc	v	v	v	v	rc	rcTB	T-->	-
integrity of visuals	no#c	no#c	no#c	no#c	no#c	no#c	√	√	no#c	√
Board of Directors	-	-	-	-	-	-	-	-	-	-
Individual Pictures	-	-	-	-	-	-	-	-	-	-
# of colors	-	-	-	-	-	-	-	-	-	-
clearly labeled	-	-	-	-	-	-	-	-	-	-
Group Pictures	-	-	-	-	-	-	-	-	-	-
# of colors	-	-	-	-	-	-	-	-	-	-
clearly labeled	-	-	-	-	-	-	-	-	-	-
placement of visuals on page	-	-	-	-	-	-	-	-	-	-
full page photos	0	8	0	0	4	0	6	5	7	0
Specific types of graphics										
line graphs	-	-	-	-	-	5	-	-	-	1
bar graphs	-	-	-	-	-	12	10	10	-	-
column graphs	24	14	15	15	8	2	3	2	10	10
pie graphs	-	-	1	2	5	-	-	-	-	-
scatter graphs	-	-	-	-	-	-	-	-	-	-
surface graphs	-	-	-	-	-	-	4-3d	-	-	-
100% bar/column graph	-	-	-	-	-	-	-	-	-	-
paired bar/column graph	-	-	-	-	-	-	-	-	-	-
grouped bars/column graph	-	1c, 1d	1d	1d	1d	1c	2c	2c	2c	-
divided bar/column graph	1c	1c	1c	1c	7c	1b,1c	3c	1c	1c	-
deviation bar/column graph	-	2c	2c	2c	-	-	-	-	-	-
pictogram	-	-	-	-	-	-	-	-	-	-
histogram	-	-	-	-	-	-	-	-	-	-
time line	-	-	3	-	-	-	-	-	-	-
line drawing	-	-	6	-	-	-	-	10	-	-
rendering	-	-	-	-	-	-	-	-	-	-
organization chart	-	-	-	-	-	-	-	-	1	-
flow chart	-	-	-	-	-	-	-	-	-	-
map	-	-	-	-	-	-	-	-	5	-

Key: fc=full color, x=no, √=yes, r=right, l=left, c=column, p=page, s=serif, ss=sans serif, t=text, gr=graphics, dn=down, is=inside
T=top, Cr=center, M=middle, B=Bottom, -->=across, 3d=three dimensional, F=full, v=various, f=figures, t=tables, P=photos, os=outside

Table D-3. Summary of Data Collected for Exxon, 1985-1994 (†= net loss)

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
Photo on cover	√	√	√	√	√	√	√	√	√	√
# of colors	fc	fc	fc	fc	fc	fc	fc	fc	fc	fc
Photo on inside cover	x	x	x	x	x	x	x	x	x	x
# of colors	-	-	-	-	-	-	-	-	-	-
Total number of photos	24	20	16	17	26	22	28	20	15	8
Total number of tables	24	20	18	17	17	14	15	15	15	15
Total number of figures	23	23	23	24	21	17	8	7	13	18
Full page photos	0	5	0	0	1	2	7	0	1	1
Double page photo	0	0	0	0	0	0	0	0	0	0
Financial Highlights Section										
# of photographs	1	2	1	0	1	1	0	0	0	0
# of tables	2	2	2	2	2	2	2	2	2	2
# of figures	0	0	0	1	0	0	4	4	4	4
# of colors	fc	fc	fc	fc+5	fc	fc	4	5	3	4
Intro/ref. to visuals	x	x	x	Tno,c yes	x	x	x	x	x	x
relevant/clear captions	√	√	√	√	√	√	√	√	√	√
placement of visual on page	across p	across p	across p	across p	across p	B Cr	FT1	FT-->	T-->1	T-->1
integrity of visuals	√	√	√	no#c	√	√	no#c	no#c	no#c	no#c
Ltr. to stockholders										
# of photographs	1	2	2	2	5	1	1	1	1	1
# of tables	0	0	0	0	0	0	0	0	0	0
# of figures	0	0	0	0	0	0	0	0	0	0
# of colors	fc	fc	fc	fc	fc	fc	fc	fc	fc	fc
intro/ref. to visuals	x	x	x	x	x	x	x	x	x	x
relevant/clear captions	√	√	√	√	√	√	√	√	√	√
placement of visual on page	B Cr1p	1c	1c	rc, rp	v	T1crp	B11p	Berrp	T1,1p	B r, rp
integrity of visuals	√	√	√	√	√	√	√	√	√	√
Scope of operations/narrative										
# of photographs	22	16	13	15	19	20	27	19	14	7
# of tables	8	8	5	5	5	0	0	0	0	0
# of figures	10	10	10	13	12	0	0	0	6	11
# of colors	fc+5	fc+6	fc+^	fc+7	fc+7	fc	fc	fc	fc+5	fc+8
intro/ref. to visuals	x	x	x	x	x	x	x	x	x	2c
relevant/clear captions	√	√	√	√	√	√	√	√	√	√
placement of visual on page	B v	frc	flc	flc	B-->	v	v	v	v	v
integrity of visuals	no#c	no#c	no#c	no#c	no#c	√	√	√	√	no#c
Typography- serif or sans serif	s,ss	s,ss	s,ss	s,ss	s,ss	s,ss	s,ss	s,ss	s,ss	s,ss

Key: fc=full color, x=no, √=yes, r=right, l=left, c=column, p=page, s=serif, ss=sans serif, t=text, gr=graphics, dn=down, is=inside
T=top, Cr=center, M=middle, B=Bottom, -->=across, 3d=three dimensional, F=full, v=various, f=figures, t=tables, P=photos, os=outside

Continued

Table D-3. Summary of Data Collected for Exxon, 1985-1994 Continued (†= net loss)

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
Mgmt's Discussion & Analysis										
# of photographs	0	0	0	0	0	0	0	0	0	0
# of tables	1	1	1	1	1	3	3	3	3	3
# of figures	10	10	10	8	6	14	3	3	3	3
# of colors	5	5	5	5	7	6	6	6	5	7
intro/ref. to visuals	x	x	x	x	x	x	x	x	x	x
relevant/clear captions	√	√	√	√	√	√	√	√	√	√
placement of visual on page	T r, B -->	T r, B -->	T r, B -->	B -->	B -->	*3	B 1/2 -->	mid r p	mid r p	mid r p
integrity of visuals	no#c	no#c	no#c	no#c	no#c	no#c	no#c	no#c	no#c	no#c
Board of Directors										
Individual Pictures	-	-	-	-	-	-	-	-	-	-
# of colors	-	-	-	-	-	-	-	-	-	-
clearly labeled	-	-	-	-	-	-	-	-	-	-
Group Pictures	-	-	-	-	-	-	-	-	-	-
# of colors	-	-	-	-	-	-	-	-	-	-
clearly labeled	-	-	-	-	-	-	-	-	-	-
placement of visuals on page	-	-	-	-	-	-	-	-	-	-
full page photos	0	5	0	0	1	2	7	0	1	1
Specific types of graphics										
line graphs	2 w/c	2 w/c	2 w/c	3 w/c	2 w/c	2 w/c	-	-	1	2
bar graphs	-	-	-	-	-	-	-	-	-	-
column graphs	1	1	-	-	-	-	3	3	4	8*
pie graphs	-	-	-	-	-	-	-	-	-	1
scatter graphs	-	-	-	-	-	-	-	-	-	-
surface graphs	-	-	-	-	-	-	-	-	-	2
100% bar/column graph	-	-	-	-	-	-	-	-	-	-
paired bar/column graph	-	-	-	-	-	-	-	-	-	-
grouped bars/column graph	3 c	3 c	4 c	5 c	5 c	4 c	2 c	2 c	2 c	2 c
divided bar/column graph	16 c	16 c	16 c	16 c	13 c*	10 c*2	1 c*	1 c*	1 c*	1 c*
deviation bar/column graph	1 bar	1 bar	1 bar	-	-	-	-	-	-	-
pictogram	-	-	-	-	-	-	-	-	-	-
histogram	-	-	-	-	-	-	-	-	-	-
time line	-	-	-	-	-	-	-	-	-	-
line drawing	-	-	-	-	-	-	-	-	-	-
rendering	-	-	-	1	-	-	-	-	-	-
organization chart	-	-	-	-	-	-	-	-	-	-
flow chart	-	-	-	-	-	-	-	-	-	-
map	-	-	-	-	-	-	-	-	-	-

*with one line; *2 with 2 lines; *3 8/p B-->

Key: fc=full color, x=no, √=yes, r=right, l=left, c=column, p=page, s=serif, ss=sans serif, t=text, gr=graphics, dn=down, is=inside
T=top, Cr=center, M=middle, B=Bottom, -->=across, 3d=three dimensional, F=full, v=various, f=figures, t=tables, P=photos, os=outside

Table D-4. Summary of Data Collected for General Electric, 1985-1994 (†= net loss)

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
Photo on cover	x	x	x	x	x	x	x	x	x	x
# of colors	-	-	-	-	-	-	-	-	-	-
Photo on inside cover	x	x	x	-	-	-	-	-	-	-
# of colors	-	-	-	-	-	-	-	-	-	-
Total number of photos	60	71	62	51	57	50	56	57	60	61
Total number of tables	8	6	8	4	6	4	5	5	5	4
Total number of figures	15	9	9	9	17	11	12	12	12	11
Full page photos	0	5	5	0	0	0	0	0	0	0
Double page photo	0	0	0	0	0	0	0	0	0	0
Financial Highlights Section										
# of photographs	F	3	4	F	F	F	F	F	F	F
# of tables	1	1	1	1	1	1	1	1	1	1
# of figures	F	F	F	F	6	F	F	F	F	F
# of colors	-	fc	fc	-	14	-	F	F	F	-
Intro/ref. to visuals relevant/clear captions	√	√	√	√	√	√	√	√	√	√
placement of visual on page integrity of visuals	T1/2Cr	rcos	T1/2Cr	TCr	3-->p,2R	T-->	T Cr	T Cr	T Cr	T Cr
Ltr. to stockholders	√	√	√	√	√	√	√	√	√	√
# of photographs	4	4	1	1	2	1	2	2	2	2
# of tables	F	F	F	-	F	F	-	-	-	-
# of figures	F	F	F	-	F	1	-	-	-	-
# of colors	fc	fc	fc	fc	fc	fc-3	fc	fc	fc	fc
intro/ref. to visuals relevant/clear captions	x	x	x	x	x	x	x	x	x	x
placement of visual on page integrity of visuals	2Bisc,2T	3osc,lisc	TlCr,rp	rp1cT1/2	lplcCr	T Cr	rpTr,rpTl	*	rpBCr,Tl	*2
Scope of operations/narrative	√	√	√	√	√	√	√	√	√	√
# of photographs	25	24	21	15	18	25	32	33	37	37
# of tables	F	F	F	F	F	F	F	F	F	F
# of figures	F	1	F	F	F	F	F	F	F	F
# of colors	fc	fc	fc	fc	fc	fc	fc	fc	fc	fc
intro/ref. to visuals relevant/clear captions	√	x	x	x	x	x	x	x	x	x
placement of visual on page integrity of visuals	x	√	√	√	√	√	√	√	√	√
	v	v	v	TCr-->v	v	v	v	v	v	v
	√	√	√	√	√	√	√	√	√	√
Typography- serif or sans serif	s,ss	s,ss	s,ss	s,ss	s,ss	s,ss	s,ss	s,ss	s,ss	s,ss

*BCRrp, rpTl; *2 BCr1/2, Tlcrp

Key: fc=full color, x=no, √=yes, r=right, l=left, c=column, p=page, s=serif, ss=sans serif, t=text, gr=graphics, dn=down

T=top, Cr=center, M=middle, B=Bottom, -->=across, 3d=three dimensional, R=row, os=outside, is=inside, t=table, f=figure, v=various, ch=chart

Continued

Table D-4. Summary of Data Collected for General Electric, 1985-1994 Continued (†= net loss)

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
Mgmt's Discussion & Analysis	-	-	-	-	-	-	-	-	-	-
# of photographs	F	F	F	F	F	F	F	F	F	F
# of tables	6	5	7	3	5	3	3	3	3	3
# of figures	15	9	9	9	11	10	9	9	9	11
# of colors	10	5	9	7	9	5	6	7	7	8
intro/ref. to visuals	allt,10f	allt,5f	all t	x	1ch,3t	3t,2f	6 of 12	2t	3t,2ch	2t,1f
relevant/clear captions	√	√	√	√	√	√	√	√	√	√
placement of visual on page	rc, Blp	v	fB	lpBr,rpTr	*3	v	isBp,osTB	isBp,osTB	isBp,osTB	isB,osTB
integrity of visuals	no#c	no#c	no#c	√	no#c	no#c	√	√	√	no#c
Board of Directors										
Individual Pictures	17	19	18	18	19	19	16	16	15	17
# of colors	fc	fc	fc	fc	fc	fc	fc	fc	fc	fc
clearly labeled	√	√	√	√	√	√	√	√	√	√
Group Pictures	-	-	-	-	-	-	-	-	-	-
# of colors	-	-	-	-	-	-	-	-	-	-
clearly labeled	-	-	-	-	-	-	-	-	-	-
placement of visuals on page	rw-->	rw-->	3rw-->	3rw-->	2rw-->	2rw-->	*4	3rw-->lp	3rw-->lp	3rw-->
Specific types of graphics										
line graphs	-	-	-	-	-	-	-	-	-	-
bar graphs	-	-	-	-	-	-	-	-	-	-
column graphs	7	5	3	5	6	7	6	5	7	7
pie graphs	-	-	-	-	-	-	-	-	-	-
scatter graphs	-	-	-	-	-	-	-	-	-	-
surface graphs	-	-	-	-	-	-	-	-	-	-
100% bar/column graph	-	-	-	-	-	-	-	-	-	-
paired bar/column graph	-	-	-	-	-	-	-	-	-	-
grouped bars/column graph	1c, 1A	-	2c	2c	7c	2c	3c	1c	1c	1c
divided bar/column graph	3c,1B	2	3c	2c	2c	1c	3c	6c	4c	3c
deviation bar/column graph	1c,1C	2C	1c	-	1c	-	-	-	-	-
pictogram	-	-	-	-	-	-	-	-	-	-
histogram	-	-	-	-	-	-	-	-	-	-
time line	-	-	-	-	-	-	-	-	-	-
line drawing	-	-	-	-	-	-	-	-	-	-
rendering	-	-	-	-	-	-	-	-	-	-
organization chart	-	-	-	-	-	-	-	-	-	-
flow chart	-	-	-	-	-	1	-	-	-	-
map	-	-	-	-	-	-	-	-	-	-

*3Brclp, TBrcrp; *4 2r-->T2p

Key: fc=full color, x=no, √=yes, r=right, l=left, c=column, p=page, na=not applicable, s=serif, ss=sans serif, t=text, gr=graphics, dn=down, rw=row
T=top, Cr=center, M=middle, B=Bottom, -->=across, 3d=three dimensional A=1 group divided: B=1 divided deviated: C=1 group deviated

Table D-5. Summary of Data Collected for General Motors, 1985-1994 (†= net loss)

	1985	1986	1987	1988	1989	1990†	1991†	1992†	1993	1994
Photo on cover	√	√	√	√	√	√	√	x	x	√
# of colors	fc	fc	fc	fc	fc	fc	fc	x	x	fc
Photo on inside cover	√	2	√	√	-	x	√	x	x	√
# of colors	fc	fc	fc	fc	-	-	fc	-	-	fc
Total number of photos	36	31	106	70	81	58	36	10	17	37
Total number of tables	9	8	7	11	14	10	10	19	16	17
Total number of figures	3	1	8	8	7	1	6	15	12	6
Full page photos	-	-	-	-	-	-	-	-	-	-
Double page photo	-	-	-	-	-	-	-	-	-	-
Financial Highlights Section										
# of photographs	0	0	0	0	0	0	0	0	0	0
# of tables	1	1	1	1	1	1	1	1	1	2
# of figures	1	1	0	0	0	0	0	0	0	1
# of colors	2	1	-	-	-	-	-	-	-	3
Intro/ref. to visuals	x	x	x	x	x	-	-	-	-	x
relevant/clear captions	√	√	√	√	√	-	-	-	-	rcT1/2
placement of visual on page	fTrc	fTrc	T-->	B2/3-->	B2/3p	B3/4p	Trp-->	Br3/4p-->	in2c-->	B2/3-->
integrity of visuals	√	√	√	√	√	√	√	√	√	√
Ltr. to stockholders										
# of photographs	0	2	2	1	1	0	1	0	1	1
# of tables	0	0	0	0	0	0	0	0	0	0
# of figures	2	0	0	0	0	0	0	2	0	0
# of colors	b&w	fc	fc	fc	fc	-	fc	3	b&w	b&w
intro/ref. to visuals	x	x	x	x	x	-	-	1 chart	-	x
relevant/clear captions	√	√	√	√	√	-	√	√	√	√
placement of visual on page	Trc	isc	Mlc	TCrrp	TCrrp	-	BCrlp	lc-->p	CrB	Tl lp
integrity of visuals	√	√	√	√	√	-	√	√	√	√
Scope of operations/narrative										
# of photographs	14	28	98	68	52	38	35	10	15	36
# of tables	1	3	0	0	1	0	0	9	0	0
# of figures	0	0	0	8	7	0	7	13	8	1
# of colors	fc	fc	fc	fc	fc+5	fc	fc	fc+3	fc&b/w	fc-7
intro/ref. to visuals	x	lt	x	x	x	x	x	x	x	x
relevant/clear captions	√	√	√	√	√	√	√	√	√	√
placement of visual on page	v	v	v	v	v	v	v	v	v	v
integrity of visuals	√	√	√	√	√	√	√	√	√	√
Typography- serif or sans serif	s,ss heads	ss	s,ss	s	s,ss	s,ss heads	s,ss heads	s,ss titles	s,ssP	s,ss

Key: fc=full color, x=no, √=yes, r=right, l=left, c=column, p=page, s=serif, ss=sans serif, t=text, gr=graphics, dn=down, is=inside
T=top, Cr=center, M=middle, B=Bottom, -->=across, 3d=three dimensional, F=full, v=various, f=figures, t=tables, P=photos, os=outside

Continued

Table D-5. Summary of Data Collected for General Motors, 1985-1994 (†= net loss)

	1985	1986	1987	1988	1989	1990†	1991†	1992†	1993	1994
Mgmt's Discussion & Analysis										
# of photographs	9	1	0	0	0	0	0	0	0	0
# of tables	5	2	5	7	10	9	7	7	13	13
# of figures	0	0	8	0	0	0	0	0	4	4
# of colors	-	fc	3	-	-	-	-	-	3 bw/blue	3
intro/ref. to visuals	√	x	x	x	x	x	x	x	x	x
relevant/clear captions	√	√	√	√	√	√	√	√	√	√
placement of visual on page	v	T r c r p	r c	v	v	-	-	-	v	v
integrity of visuals	√	√	no#c	√	√	√	√	√	√	√
Board of Directors										
Individual Pictures	exec com	-	exec com	exec com	18	20	-	-	-	-
# of colors	fc	-	fc	fc	fc	fc	-	-	-	-
clearly labeled	√	-	√	√	√	√	-	-	-	-
Group Pictures	-	-	-	-	-	-	-	-	-	-
# of colors	-	-	-	-	-	-	-	-	-	-
clearly labeled	-	-	-	-	-	-	-	-	-	-
placement of visuals on page	T-->	-	row -->	T r	3 row -->	row -->	-	-	-	-
# Full page photos	2	0	15	16	1	13	0	1	0	0
Specific types of graphics										
line graphs	-	-	-	-	-	-	-	-	1	1
bar graphs	-	-	-	-	-	-	-	-	-	-
column graphs	-	-	7	-	2	-	-	1	2	2
pie graphs	1	1	1	-	-	-	-	-	-	-
scatter graphs	-	-	-	-	-	-	-	-	-	-
surface graphs	-	-	-	-	1	-	-	1 c	-	-
100% bar/column graph	-	-	-	-	-	-	-	-	-	-
paired bar/column graph	-	-	-	-	-	-	-	-	-	-
grouped bars/column graph	-	-	-	-	-	-	-	-	-	-
divided bar/column graph	-	-	-	-	-	-	-	1 c	-	1 c
deviation bar/column graph	-	-	-	-	1 c	-	-	-	1 c	1 c
pictogram	-	-	-	1	1	-	-	-	-	-
histogram	-	-	-	-	-	-	-	-	-	-
time line	-	-	-	-	-	-	-	-	-	-
line drawing	2	-	-	2	-	-	-	-	-	-
rendering	-	-	-	1	2	-	7	8	-	1
organization chart	-	-	-	-	-	-	-	2	-	-
flow chart	-	-	-	-	-	-	-	2	-	-
map	-	-	-	-	-	-	-	-	-	-
logo	-	-	-	4	-	1	-	-	8	-

Key: fc=full color, x=no, √=yes, r=right, l=left, c=column, p=page, s=serif, ss=sans serif, t=text, gr=graphics, dn=down, is=inside
T=top, Cr=center, M=middle, B=Bottom, -->=across, 3d=three dimensional, F=full, v=various, f=figures, t=tables, P=photos, os=outside

Table D-6. Summary of Data Collected for IBM, 1985-1994 (†= net loss)

	1985	1986	1987	1988	1989	1990	1991†	1992†	1993†	1994
Photo on cover	√	√	√	√	√	√	x	x	√	x
# of colors	fc	fc	fc	fc	fc	fc	-	-	fc	-
Photo on inside cover	x	x	x	√	√	x	x	x	x	√
# of colors	-	-	-	fc	4	-	-	-	-	fc
Total number of photos	26	22	18	38	28	30	8	10	18	39
Total number of tables	8	7	7	3	17	7	6	3	15	14
Total number of figures	13	13	7	9	8	25	7	8	8	22
Full page photos	5	5	5	5	10	0	1	9	4	5
Double page photo	0	0	0	0	0	0	0	0	0	0
Financial Highlights Section										
# of photographs	0	0	0	0	0	0	0	0	0	∅
# of tables	1	1	1	1	1	1	2	1	1	1
# of figures	2	2	2	3	3	3	3	3	0	∅
# of colors	4	3	3	2	3	3	3	4	-	-
Intro/ref. to visuals	x	x	x	x	x	x	x	x	-	x
relevant/clear captions	√	√	√	√	√	√	√	√	√	√
placement of visual on page	f B	f B	f B	3 --> B	3 --> B	3 --> B	3 --> B	3 --> B	Cr p	T 2/3 -->
integrity of visuals	√	√	√	√	√	√	√	√	√	√
Ltr. to stockholders										
# of photographs	1	1	1	1	1	1	1	1	1	1
# of tables	0	0	0	0	0	0	0	0	0	∅
# of figures	0	0	0	0	0	0	0	0	4	7
# of colors	fc	fc	fc	fc	fc	b/w	fc	fc	fc+3	fc+8
intro/ref. to visuals	x	x	x	x	x	x	x	x	x	x
relevant/clear captions	√	√	√	√	√	√	√	√	√	√
placement of visual on page	Bis	Tlc	Tlrp	Tlrp	l	Bl	Tr,rp	Trc,rp	lc	v
integrity of visuals	√	√	√	√	√	√	√	√	no#c	√
Scope of operations/narrative										
# of photographs	25	21	17	36	26	29	7	9	17	38
# of tables	0	0	0	0	0	0	0	0	0	∅
# of figures	0	0	0	1	0	18	0	0	4	10
# of colors	fc	fc	fc	*	fc	fc	fc	fc	fc+3	fc
intro/ref. to visuals	x	x	x	x	x	x	x	x	x	x
relevant/clear captions	√	√	√	√	*2	not all	√	√	√	√
placement of visual on page	v	v	v	*3	v	v	T1/2rp	Fp	v	v
integrity of visuals	√	√	√	√	√	√	√	√	√	√
Typography- serif or sans serif	s	s	s,ss	s,ss	s,ss	s,ss	s	s	s,ss	s,ss

* P fc, maps-4; *2 captions/none detailed; *3 P v, maps rCr2p

Key fc=full color, x=no, √=yes, r=right, l=left, c=column, p=page, s=serif, ss=sans serif, t=text, gr=graphics, dn=down, is=inside
T=top, Cr=center, M=middle, B=Bottom, -->=across, 3d=three dimensional, F=full, v=various, os=outside

Continued

Table D-6. Summary of Data Collected for IBM, 1985-1994 Continued (†= net loss)

	1985	1986	1987	1988	1989	1990	1991†	1992†	1993†	1994
Mgmt's Discussion & Analysis										
# of photographs	0	0	0	0	0	0	0	0	0	∅
# of tables	4	4	4	0	16	4	2	0	12	11
# of figures	11	5	5	5	2	4	4	3	0	∅
# of colors	8	7	8	4	5	4	5	6	-	-
intro/ref. to visuals	2 graphs	x	x	x	x	x	2 t	x	3 t	x
relevant/clear captions	√	√	√	√	√	√	√	√	√	√
placement of visual on page	v	v	v	T-->rcrp	osprc	Tlc	fosc	fosc	v	across
integrity of visuals	no#c	no#c	no#c	no#c	√	√	√	√	√	√
Board of Directors										
Individual Pictures	x	x	x	-	x	x	x	x	x	x
# of colors	-	-	-	-	-	-	-	-	-	-
clearly labeled	-	-	-	-	-	-	-	-	-	-
Group Pictures	-	-	-	-	-	-	-	-	-	-
# of colors	-	-	-	-	-	-	-	-	-	-
clearly labeled	-	-	-	-	-	-	-	-	-	-
placement of visuals on page	-	-	-	-	-	-	-	-	-	-
full page photos	5	5	5	5	10	0	1	9	4	5
Specific types of graphics										
line graphs	6	6	-	-	-	-	-	-	-	-
bar graphs	-	-	-	-	-	-	-	-	-	-
column graphs	1	2	2	3	3-c	3-c	3	2	3	3
pie graphs	2	2	2	-	2-c	-	-	-	-	-
scatter graphs	-	-	-	-	-	-	-	-	-	-
surface graphs	-	-	-	-	-	-	-	-	-	-
100% bar/column graph	-	-	-	-	-	-	-	-	-	-
paired bar/column graph	-	-	-	-	-	-	-	-	-	-
grouped bars/column graph	3c	2c	2c	2c	2c	2c	1 deviated	1 deviated	-	-
divided bar/column graph	1c	1c	1c	1c	1c	2c	2c	2c	1c	-
deviation bar/column graph	-	-	-	-	-	-	1c	1c	-	1c
pictogram	-	-	-	-	-	-	-	-	-	-
histogram	-	-	-	-	-	-	-	-	-	-
time line	-	-	-	-	-	-	-	-	-	-
line drawing	-	-	-	-	-	-	-	-	4	*4
rendering	-	-	-	-	-	18	-	-	-	-
organization chart	-	-	-	-	-	-	-	-	-	-
flow chart	-	-	-	-	-	-	-	-	-	-
map	-	-	-	-	-	-	-	-	-	-
shaded map	-	-	-	1	-	-	-	2	-	-

*4 18 cartoon images

Key: fc=full color, x=no, √=yes, r=right, l=left, c=column, p=page, s=serif, ss=sans serif, t=text, gr=graphics, dn=down, is=inside
T=top, Cr=center, M=middle, B=Bottom, -->=across, 3d=three dimensional, F=full, v=various, os=outside

Table D-7. Summary of Data Collected for International Paper, 1985-1994 (†= net loss)

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
Photo on cover	√	√	√*	x	√	√	√	√	√	x
# of colors	fc	fc	4	-	fc	fc	fc	fc	-	-
Photo on inside cover	x	x	x	x	x	x	x	x	x	x
# of colors	-	-	-	-	-	-	-	-	-	-
Total number of photos	34	29	26	18	23	18	39	85	38	56
Total number of tables	5	2	1	6	8	16	10	10	13	13
Total number of figures	10	13	26	21	21	24	16	18	21	19
Full page photos	6	15	1	0	16	17	14	12	25	5
Double page photo	0	0	0	0	0	0	0	0	0	0
Financial Highlights Section										
# of photographs	0	0	0	0	0	0	0	0	0	0
# of tables	1	1	1	1	0	1	1	1	1	1
# of figures	0	0	0	0	4	4	4	6	3	4
# of colors	-	-	-	-	4	6-fc	8	13	9	8
Intro/ref. to visuals	x	-	-	-	-	x	√	x	x	x
relevant/clear captions	√	√	√	√	√	√	√	√	√	√
placement of visual on page	Tl	Tp	T-->	B1/2p	fc1pCr	fCrp	lp4-->B	*2	3-->B	B-->
integrity of visuals	√	√	√	√	√	no#c	√	√	no#c	no#c
Ltr. to stockholders										
# of photographs	2	1	1	5	1	1	1	1	1	8
# of tables	0	0	0	0	0	0	0	0	0	0
# of figures	0	0	0	0	0	0	0	0	0	0
# of colors	fc	fc	fc	fc	fc	fc	fc	fc	fc	b/w
intro/ref. to visuals	x	x	-	-	x	x	x	x	x	x
relevant/clear captions	√	√	√	√	√	√	√	√	√	√
placement of visual on page	T1/2	Fpl	T3/4p	osc	3/4pCr	lcCr	is	T1/2iscrp	lcCr	Crp
integrity of visuals	√	√	√	√	√	√	√	√	√	√
Scope of operations/narrative										
# of photographs	32	25	25	13	19	19	18	30	25	13
# of tables	3	0	0	0	0	0	0	0	0	0
# of figures	7	10	22	12	9	7	5	5	15	0
# of colors	fc+6	*3	fc	fc	9	fc+11	fc	fc	fc+15	fc
intro/ref. to visuals	x	x	x	x	x	x	x	x	x	x
relevant/clear captions	√	√	√	√	√	√	√	√	√	√
placement of visual on page	2f/1p	v	v	osc	v	Trc	v	v	v	v
integrity of visuals	√	√	√	√	*4	no#c	√	√	no#c	√
Typography- serif or sans serif	s,ss	0	ss	s,ss	s	s	s,ss	s,ss	s	s,ss

* with raised drawings; *2 3-->T, Blp; *3 photos fc, f-2 ea; *4 no % on pies, no # on bars

Key: fc=full color, x=no, √=yes, r=right, l=left, c=column, p=page, s=serif, ss=sans serif, t=text, gr=graphics, dn=down, is=inside
T=top, Cr=center, M=middle, B=Bottom, -->=across, 3d=three dimensional, F=full, v=various, f=figures, t=tables, P=photos, os=outside

Continued

Table D-7. Summary of Data Collected for International Paper, 1985-1994 Continued (†= net loss)

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
Mgmt's Discussion & Analysis										
# of photographs	0	0	0	0	0	6	11	46	0	25
# of tables	1	1	0	4	7	13	9	9	10	10
# of figures	3	3	3	8	7	13	7	7	4	15
# of colors	4 greens	4	4	4	7	fc+8	fc	fc	10	fc+4
intro/ref. to visuals	*5	x	x	x	x	x	x	x	x	x
relevant/clear captions	√	√	√	√	√	√	√	√	√	√
placement of visual on page	t in text	r crp	osrcrp	v	fit in text	v	*6		Bc	v
integrity of visuals	√	√	√	no#c	no#bar	no#c	√	√	no#c	no#c
Board of Directors										
Individual Pictures	0	0	x	x	x	x	1	9	-	-
# of colors	-	-	-	-	-	-	fc	fc	-	-
clearly labeled	-	-	-	-	-	-	√	√	-	-
Group Pictures	0	1	x	x	√	-	7	0	3	-
# of colors	-	fc	-	-	fc	-	fc	-	fc	-
clearly labeled	-	√	-	-	√	-	√	-	√	-
placement of visuals on page	-	full p r	-	-	T2/3rp	-	v	all 1 p	all 1 p	-
full page photos	6	15	1		16	17	14	12	25	5
Specific types of graphics										
line graphs	5	-	-	-	-	-	-	-	-	-
bar graphs	-	-	-	-	14	-	-	-	-	-
column graphs	1	1-3d	2-3d	8	-	6	3	5	4	4
pie graphs	-	10 3d	10	-	5	7	5	5	5	-
scatter graphs	-	-	-	-	-	-	-	-	-	-
surface graphs	-	-	-	-	-	-	-	-	-	-
100% bar/column graph	-	-	-	-	-	-	-	-	-	-
paired bar/column graph	-	-	-	-	-	-	-	-	-	-
grouped bars/column graph	-	-	-	-	-	1 c	-	-	-	-
divided bar/column graph	3c 1bar	2 bar 3c	1-3d	-	-	8 c	8 c	7 c	12 c	12 c
deviation bar/column graph	-	-	-	-	-	-	-	1 c	1 c	1 c
pictogram	-	-	-	-	-	-	-	-	-	-
histogram	-	-	-	-	-	-	-	-	-	-
time line	-	-	-	-	-	-	-	-	-	-
line drawing	-	-	-	-	-	-	-	-	-	1
rendering	-	-	-	-	-	-	-	-	-	-
organization chart	-	-	-	-	-	-	-	-	-	-
flow chart	-	-	-	-	-	-	-	-	-	-
distribution map	-	-	-	-	-	2	-	-	-	1
overall view with illustrations	-	-	13	12	-	-	-	-	-	-

*4tab yes, fig no; *6 f is c, photo facing p

Key: fc=full color, x=no, √=yes, r=right, l=left, c=column, p=page, s=serif, ss=sans serif, t=text, gr=graphics, dn=down, is=inside
T=top, Cr=center, M=middle, B=Bottom, -->=across, 3d=three dimensional, F=full, v=various, f=figures, t=tables, P=photos, os=outside

Table D-8. Summary of Data Collected for Eastman Kodak, 1985-1994 (†= net loss)

	1985	1986	1987	1988	1989	1990	1991	1992	1993†	1994
Photo on cover	√	√	√	√	√	√	√	√	√	√(cutouts)
# of colors	fc	fc	3	fc	fc	fc	fc	fc	fc	fc
Photo on inside cover	x	√	x	x	x	x	√	√	√	x
# of colors	na	fc	na	na	na	na	fc	fc	fc	na
Total number of photos	40	70	35	48	53	22	55	58	43	78
Total number of tables	10	9	9	9	14	13	8	8	9	7
Total number of figures	10	7	7	7	8	6	4	4	4	4
Full page photos	4	4	8	5	7	6	4	0	5	2
Double page photo	2	1	0	0	0	0	0	0	0	0
Financial Highlights Section										
# of photographs	0	0	0	0	0	0	5	4	3	1
# of tables	1	1	1	1	1	1	1	1	1	1
# of figures	0	0	0	0	0	0	0	0	0	0
# of colors	0	0	0	0	0	0	fc	fc	fc	1
Intro/ref. to visuals	x	x	x	x	x	x	x	x	x	x
relevant/clear captions	√	√	√	√	√	√	√	√	√	x
placement of visual on page	T1/2 -->	T1/2 -->	T Ctr	T1/2 -->	T2/3-->	T2/3-->	v	v	v	r c/r p
integrity of visuals	√	√	√	√	√	√	√	√	√	√
Ltr. to stockholders										
# of photographs	2	3	1	4	2	2	4	4	1	3
# of tables	0	0	0	0	0	0	0	0	0	0
# of figures	0	0	0	0	0	0	0	0	0	0
# of colors	fc	fc	fc	fc	fc	fc	fc	fc	fc	fc
intro/ref. to visuals	x	x	x	x	x	x	x	x	x	x
relevant/clear captions	√	√	√	√	√	√	√	√	√	√
placement of visual on page	B-->,T-->	v	T1	T -->	T B Cr,l p	T1/2	T Cr,M Cr	Cr T,B	B l, r p	T 1/2
integrity of visuals	√	√	√	√	√	√	√	√	√	√
Scope of operations/narrative										
# of photographs	37	65	32	28	39	20	40	43	35	66
# of tables	0	0	0	0	5	4	0	0	1	0
# of figures	3	0	0	0	1	0	0	0	4	4
# of colors	fc/4	fc	fc	fc	fc/3	fc	fc	fc	fc/3	6
intro/ref. to visuals	x	x	x	x	x	x	x	x	x	x
relevant/clear captions	√	√	√	√	√	√	√	√	√	√
placement of visual on page	v	v	v	v	v*	v	v	v	v	v*2
integrity of visuals	no # on c	√	√	√	√	√	√	√	√	√
Typography- serif or sans serif	s	s	s	s	s	s	t=s/gr=ss	s,heads=ss	t=s/gr=ss	t=s/gr=ss

*Tables=T r; *2 Fig=lp,lc

Key: fc=full color, x=no, √=yes, r=right, l=left, c=column, p=page, s=serif, ss=sans serif,t=text, gr=graphics, dn=down, is=inside
T=top, Cr=center, M=middle, B=Bottom, -->=across, 3d=three dimensional, F=full, v=various, f=figures, t=tables, P=photos, os=outside

Continued

Table D-8. Summary of Data Collected for Eastman Kodak, 1985-1994 Continued (†= net loss)

	1985	1986	1987	1988	1989	1990	1991	1992	1993†	1994
Mgmt's Discussion & Analysis										
# of photographs	0	0	0	0	0	0	0	0	0	0
# of tables	7	7	8	8	8	7	6	6	6	5
# of figures	7	7	7	7	7	6	4	4	0	0
# of colors	3	4	4	3	4	4	4	6	0	0
intro/ref. to visuals	x	x	x	2t	2t	3t	1t	x	x	x
relevant/clear captions	√	√	√	√	√	√	√	√	√	√
placement of visual on page	l c	os c	os c	os c	os c	os c	v	is c	v	v
integrity of visuals	no # on c	√	√	√	√	√	√	√	√	no # on c
Board of Directors										
Individual Pictures	1*3	1*3	2*3	16	3*3	1*3	1*3	1*3	2*3	x
# of colors	fc	fc	fc	fc	fc	fc	fc	fc	fc	na
clearly labeled	√	√	√	√	√	√	√	√	√	na
Group Pictures	x	x	x	x	x	x	x	x	x	1
# of colors	na	na	na	na	na	na	na	na	na	fc
clearly labeled	na	na	na	na	na	na	na	na	na	√
placement of visuals on page	T C	T r	T r	rows -->	rows dn	T r	B r	T l c	1 p, 1 c	T Ctr
Specific types of graphics										
line graphs	-	-	-	-	-	-	-	-	-	-
bar graphs	-	4	-	-	-	-	3	-	-	-
column graphs	7	-	4	4	5	4	-	3	-	3-3d
pie graphs	-	-	-	-	-	-	-	-	-	1-3d
scatter graphs	-	-	-	-	-	-	-	-	-	-
surface graphs	-	-	-	-	-	-	-	-	2	-
100% bar/column graph	-	-	-	-	-	-	-	-	-	-
paired bar/column graph	-	-	-	-	-	-	-	-	-	-
grouped bars/column graph	-	-	-	-	-	-	-	-	-	-
divided bar/column graph	3 (c)	3 (b)	3 (c)	3 (c)	2 (c)	2 (c)	1 (c)	1 (c)	-	-
deviation bar/column graph	-	-	-	-	-	-	-	-	-	-
pictogram	-	-	-	-	-	-	-	-	-	-
histogram	-	-	-	-	-	-	-	-	-	-
time line	-	-	-	-	-	-	-	-	-	-
line drawing	-	-	-	-	-	-	-	-	-	-
rendering	-	-	-	-	-	-	-	-	-	-
organization chart	-	-	-	-	-	-	-	-	-	-
flow chart	-	-	-	-	-	-	-	-	-	-
map	2	-	-	-	-	-	-	-	-	-

*3new board members only

fc=full color, x=no, √=yes, r=right, l=left, c=column, p=page, na=not applicable, s=serif, ss=sans serif, t=text, gr=graphics, dn=down, is=inside
T=top, Cr=center, M=middle, B=Bottom, -->=across, 3d=three dimensional, F=full, v=various, f=figures, t=tables, P=photos, os=outside

Table D-9. Summary of Data Collected for Philip Morris, 1985-1994 (†= net loss)

	1985	1986	1987	1988	1989	1990	1991	1992	1993†	1994
Photo on cover	√	√	√	x	√	√	√	√	x	√
# of colors	fc	fc	fc	na	fc	fc	fc	fc	na	fc
Photo on inside cover	x	x	x	x	x	√	x	x	√	x
# of colors	na	na	na	na	na	fc	na	na	fc	na
Total number of photos	33	60	43	54	74	70	56	67	25	38
Total number of tables	4	2	2	2	13	15	5	6	24	13
Total number of figures	16	14	14	20	19	17	12	13	14	22
Full page photos	5	0*	5	4	9	9	9	0	0	0
Double page photo	0	0	0	1	0	0	0	0	0	0
Financial Highlights Section										
# of photographs	0	5	6	0	0	0	0	0	5	4
# of tables	1	1	1	1	1	1	1	1	7	5
# of figures	0	0	0	0	0	0	5	3	2	6
# of colors	na	fc	fc	na	na	na	7	6	7	fc, 8
Intro/ref. to visuals	x	x	x	x	x	x	x	x	x	x
relevant/clear captions	√	√	√	√	√	√	√	√	√	√
placement of visual on page	-->	various	various	-->	-->	-->	in.cov.**	in.cov.**	in.cov.**	various
integrity of visuals	√	√	√	√	√	√	no # on b	no # on b	no # on b	√
Ltr. to stockholders										
# of photographs	1	0	0	0	1	1	2	1	1	1
# of tables	0	0	0	0	0	0	0	0	0	0
# of figures	12	5	5	5	5	5	0	0	2	2
# of colors	fc,5	7	8	9	fc,9	8	fc	fc	fc, 5	fc,7
intro/ref. to visuals	x	x	x	x	x	x	x	x	x	x
relevant/clear captions	√	√	√	√	√	√	√	√	√	√
placement of visual on page	fig -->B	--> B	--> B	r c,r p	r c, r p	r c	B r, T r	T l c r p	inside cTB	T-->
integrity of visuals	√	no # on c	no # on c	no # on c	no # on c	no # on c	√	√	√	√
Scope of operations/narrative										
# of photographs	5	28	15	32	50	48	35	47	13	16
# of tables	0	0	0	0	11	10	0	1	9	0
# of figures	4	5	5	11	10	9	4	10	10	14
# of colors	fc,2	fc,6	fc,5	fc,10	fc,9	fc,9	fc,5	fc,11	fc,4	fc,7
intro/ref. to visuals	x	x	x	x	x	x	x	x	x	x
relevant/clear captions	√	√	√	√	√	√	√	√	√	√
placement of visual on page	figures B	figures B	figures B	outside c	various	r c	B inside c	various	figures T	T-->
integrity of visuals	√	no # on c	no # on c	no # on c	no # on c	no # on c	no # on c	no # on c	√	√
Typography- serif or sans serif	s	s,ss heads	s,ss titles	s,ss gr	s,ss gr	s, ss gr	s, ss gr	s, ss gr	s, ss gr	ss, s heads

*6 pages have only multiple photos, **in.cov=inside cover

Key: fc=full color, x=no, √=yes, r=right, l=left, c=column, b=bar, p=page, s=serif, ss=sans serif, t=text, gr=graphics, T=top, Cr=center, M=middle, B=Bottom, -->=across, dn=down, 3d=three dimensional

Continued

Table D-9. Summary of Data Collected for Philip Morris, 1985-1994 Continued (†= net loss)

	1985	1986	1987	1988	1989	1990	1991	1992	1993†	1994
Mgmt's Discussion & Analysis										
# of photographs										
# of tables										
# of figures										
# of colors										
intro/ref. to visuals										
relevant/clear captions										
placement of visual on page										
integrity of visuals										
Board of Directors										
Individual Pictures	√	√	√	√	√	√	√	√	x	√
# of colors	fc	fc	fc	fc	fc	fc	fc	fc	na	fc
clearly labeled	√	√	√	√	√	√	√	√	na	√
Group Pictures	x	x	x	x	x	x	x	x	√(6)	x
# of colors	na	na	na	na	na	na	na	na	fc	na
clearly labeled	na	na	na	na	na	na	na	na	√	na
placement of visuals on page	3 rows-->	3 rows-->	3 rows-->	c dn p	c dn p	c dn p	c dn p	c dn p	various	
Specific types of graphics										
line graphs	-	-	-	-	-	-	-	-	-	1
bar graphs	-	-	-	-	-	-	2	1	-	-
column graphs	-	5+7w/line	4+7w/line	5+4w/line	4+4w/line	3+4w/line	1+3w/line	1+1w/line	-	5
pie graphs	-	-	-	3	3	4	-	5	-	8
scatter graphs	-	-	-	-	-	-	-	-	-	-
surface graphs	9+6w/line	-	-	3	33	1	1	1	1	3
100% bar/column graph	-	-	-	-	-	-	-	-	-	-
paired bar/column graph	-	-	-	-	-	-	-	-	-	-
grouped bars/column graph	-	-	-	-	-	-	-	-	1 c	2 c
divided bar/column graph	-	2 c	3c	5 c	5 c	5c	3 b, 2 c	2 b, 3 c	2 b	1 c*
deviation bar/column graph	-	-	-	-	-	-	-	-	-	-
pictogram	-	-	-	-	-	-	-	-	-	-
histogram	-	-	-	-	-	-	-	-	-	-
time line	-	-	-	-	-	-	-	-	-	-
line drawing	-	-	-	-	-	-	-	-	-	-
rendering	-	-	-	-	-	-	-	-	-	-
organization chart	-	-	-	-	-	-	-	-	-	-
flow chart	-	-	-	-	-	-	-	-	-	-
map	-	-	-	-	-	-	-	-	-	-
logos	-	-	-	-	-	-	-	-	10	-

* divided and grouped columns

Key: fc=full color, x=no, √=yes, r=right, l=left, c=column, p=page, s=serif, ss=sans serif, t=text, gr=graphics, dn=down
T=top, Cr=center, M=middle, B=Bottom, -->=across, 3d=three dimensional

Table D-10. Summary of Data Collected for Tenneco, 1985-1994 (†= net loss)

	1985†	1986†	1987†	1988	1989	1990	1991†	1992†	1993	1994
Photo on cover	x	x	x	√	√	√	√	x art	√ (4)	√
# of colors	-	-	-	fc	fc	fc	g & w	many	fc	fc
Photo on inside cover	x	x	x	x	√	x	√ 8b&w	x	x	x
# of colors	-	-	-	-	fc	-	b&w	-	-	-
Total number of photos	20	27	26	37	36	40	16	1	46	35
Total number of tables	9	9	9	14	11	11	11	5	4	4
Total number of figures	5	4	4	6	8	15	2	28	17	30
Full page photos	1	2	2	6	6	6	0	0	6	11
Double page photos	0	1	1	0	0	0	0	0	0	0
Financial Highlights Section	-	-	-	-	-	-	-	-	-	-
# of photographs	0	0	0	0	0	0	0	0	7	4
# of tables	2	2	2	2	1	1	2	2	2	2
# of figures	0	0	0	0	2	3	2	0	6	15
# of colors	0	1	1	-	6	3	7	-	6	5 & fc
Intro/ref. to visuals	x	x	x	-	-	-	-	-	√	x
relevant/clear captions	√	√	√	√	√	√	√	√	Bp	√
placement of visual on page	-->p	-->p	-->p	-->p	-->p	figB-->	fig inc	-->	√	fig rcrp
integrity of visuals	√	√	√	√	√	√	no%onpies	√	√	√
Ltr. to stockholders	-	-	-	-	-	-	-	-	-	-
# of photographs	2	3	5	3	1	1	1	1	1	0
# of tables	0	0	0	0	0	0	0	0	0	0
# of figures	2	2	2	0	0	0	0	8	0	2
# of colors	fc+2	fc+2	fc+2	fc	fc	fc	grey & w	4 (bright)	fc	2
intro/ref. to visuals	x	x	x	x	x	x	x	√	-	-
relevant/clear captions	√	√	√	√	√	√	√	√	√	√
placement of visual on page	P T3/4	P T outside	T outside	outside c	B r 3/4 p	T 1/2 rp	M lc	both c	rc rp	C pg
integrity of visuals	√	√	√	√	√	√	√	√	√	√
Scope of operations/narrative	-	-	-	-	-	-	-	-	-	-
# of photographs	18	24	21	22	21	35	7	0	38	30
# of tables	5	5	5	7	7	8	7	1	0	0
# of figures	3	2	2	6	6	12	0	19	11	14
# of colors	fc+3	fc+3	fc+2	fc+3	fc+2	fc+6	b&w	fc+2	fc+2	fc+11
intro/ref. to visuals	x	x	x	x	x	x	x	x	x	x
relevant/clear captions	√	√	√	√	√	√	√	√	√	√
placement of visual on page	m-b-rc-bl	gr TB	gr TB	various	Trc	gr rcrp	outside c	outside c	various	various
integrity of visuals	√	√	√	√	√	√	√	√	√	√
Typography- serif or sans serif	s, ss-maps	s,P ss	s, P ss	s, P ss	ss	ss	ss	sw/ ssgr	sw/ ssgr	sw/ ssgr

Key: fc=full color, x=no, √=yes, r=right, l=left, c=column, p=page, s=serif, ss=sans serif,t=text, gr=graphics, dn=down
T=top, Cr=center, M=middle, B=Bottom, -->=across, 3d=three dimensional, P=photo

Continued

Table D-10. Summary of Data Collected for Tenneco, 1985-1994 Continued (†= net loss)

	1985†	1986†	1987†	1988	1989	1990	1991†	1992†	1993	1994
Mgmt's Discussion & Analysis	-	-	-	-	-	-	-	-	-	-
# of photographs	0	0	0	0	0	0	0	0	0	0
# of tables	1	1	1	3	1	0	0	0	0	0
# of figures	0	0	0	0	0	0	0	0	0	0
# of colors	0	0	0	-	0	-	0	0	-	-
intro/ref. to visuals	-	x	x	√	x	-	-	-	-	-
relevant/clear captions	√	√	√	√	√	-	-	-	-	-
placement of visual on page	full p	full p x2	full p x2	Bp	B	-	-	-	-	-
integrity of visuals	√	√	√	√	√	-	-	-	-	-
Board of Directors	-	-	-	-	-	-	-	-	-	-
Individual Pictures	-	-	-	-	-	-	-	-	-	-
# of colors	-	-	-	-	-	-	-	-	-	-
clearly labeled	-	-	-	-	-	-	-	-	-	-
Group Pictures	-	-	-	-	-	-	-	-	-	-
# of colors	-	-	-	-	-	-	-	-	-	-
clearly labeled	-	-	-	-	-	-	-	-	-	-
placement of visuals on page	-	-	-	-	-	-	-	-	-	-
full page photos	0	8	0	0	4	0	6	5	7	0
Specific types of graphics	-	-	-	-	-	-	-	-	-	-
line graphs	-	-	-	-	-	5	-	-	-	1
bar graphs	-	-	-	-	-	12	10	10	-	-
column graphs	24	14	15	15	8	2	3	2	10	10
pie graphs	-	-	1	2	5	-	-	-	-	-
scatter graphs	-	-	-	-	-	-	-	-	-	-
surface graphs	-	-	-	-	-	-	4-3d	4-3d	-	-
100% bar/column graph	-	-	-	-	-	-	-	-	-	-
paired bar/column graph	-	-	-	-	-	-	-	-	-	-
grouped bars/column graph	-	-	-	-	-	-	-	-	-	-
divided bar/column graph	-	-	-	-	-	-	-	-	-	-
deviation bar/column graph	-	-	-	-	-	-	-	-	-	-
pictogram	-	-	-	-	-	-	-	-	-	-
histogram	-	-	-	-	-	-	-	-	-	-
time line	-	-	3	-	-	-	-	-	-	-
line drawing	-	-	6	-	-	-	-	10	-	-
rendering	-	-	-	-	-	-	-	-	-	-
organization chart	-	-	-	-	-	-	-	-	1	-
flow chart	-	-	-	-	-	-	-	-	-	-
distribution map	-	-	-	-	-	-	-	-	-	-
symbols	-	-	-	-	-	-	-	-	5	-

Key: fc=full color, x=no, √=yes, r=right, l=left, c=column, p=page, s=serif, ss=sans serif, t=text, gr=graphics, dn=down T=top, Cr=center, M=middle, B=Bottom, -->=across, 3d=three dimensional

**APPENDIX E: TABLE 1. TOTAL NUMBER OF VISUAL ELEMENTS BY
COMPANY AND YEAR**

Table E-1. Total Number of Graphic Elements by Company and Year

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	Average per Company
Alcoa	70	67	40	49	92	82	96	71	39	46	65.2
DuPont	58	43	82	57	56	80	65	70	40	66	61.7
Exxon	71	63	57	58	64	53	51	42	43	41	54.3
GE	83	86	79	64	80	65	73	74	77	76	75.7
GM	42	40	121	89	102	69	52	44	45	60	66.4
IBM	47	42	32	50	53	62	21	21	41	75	44.4
Int. Paper	44	44	53	45	52	58	65	113	72	88	63.4
Kodak	60	86	51	64	75	41	67	70	56	89	65.9
P. Morris	53	76	59	76	106	102	73	86	63	73	76.7
Tenneco	34	43	39	57	55	66	29	34	67	69	49.3
Average per Year	56.2	59	61.3	60.9	73.5	67.8	59.2	62.5	54.3	68.3	

Key: shading signifies net loss years

**APPENDIX F: TABLES 1-3. SUMMARIES OF NUMBERS OF
TABLES, PHOTOGRAPHS, AND FIGURES BY YEAR AND COMPANY**

Table F-1. Companies' Yearly Tables

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	Average by Company
Alcoa	8	8	10	8	6	10	8	17	13	11	9.9
Dupont	15	13	13	14	14	21	12	15	11	12	14
Exxon	24	20	18	17	17	14	15	15	15	15	17
GE	8	6	8	4	6	4	5	5	5	4	5.5
GM	9	8	7	11	14	10	10	19	16	17	12.1
IBM	8	7	7	3	17	7	6	3	15	14	8.7
Int. Paper	5	2	1	6	8	16	10	10	13	13	8.4
Kodak	10	9	9	9	14	13	8	8	9	7	9.6
P. Morris	4	2	2	2	13	15	5	6	24	13	8.6
Tenneco	9	9	9	14	11	11	11	5	4	4	8.7
Total /Yr	100	84	184	88	120	208	90	103	193	110	
Average/Yr	10	8.4	18.4	8.8	12	20.8	9	10.3	19.3	11	

Key: shading signifies net loss year

Table F-2. Companies' Yearly Photographs

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	Average by Company
Alcoa	10	20	7	22	51	42	56	30	6	34	27.8
Dupont	18	11	39	22	21	37	30	29	10	43	26
Exxon	24	20	16	17	26	22	28	20	15	8	19.6
GE	60	71	62	51	57	50	56	57	60	61	58.5
GM	36	31	106	70	81	58	36	10	17	37	48.2
IBM	26	22	18	38	28	30	8	10	18	39	23.7
Int. Paper	34	29	26	18	23	18	39	85	38	56	36.6
Kodak	40	70	35	48	53	22	55	58	43	78	50.2
P. Morris	33	60	43	54	74	70	56	67	25	38	52
Tenneco	20	27	26	37	36	40	16	1	46	35	28.4
Total/Year	301	361	662	377	450	827	380	367	747	429	
Average/Yr	30.1	36.1	66.2	37.7	45	82.7	38	36.7	74.7	42.9	

Key: Shading signifies net loss

Table F-3. Companies' Yearly Figures

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	Average by Company
Alcoa	52	39	23	19	35	30	32	24	20	10	28.4
Dupont	25	19	30	21	21	22	23	26	19	11	21.7
Exxon	23	23	23	24	21	17	8	7	13	18	17.7
GE	15	9	9	9	17	11	12	12	12	11	11.7
GM	3	1	8	8	7	1	6	15	12	6	6.7
IBM	13	13	7	9	8	25	7	8	8	22	12
Int. Paper	10	13	26	21	21	24	16	18	21	19	18.9
Kodak	10	7	7	7	8	6	4	4	4	4	6.1
P. Morris	16	14	14	20	19	17	12	13	14	22	16.1
Tenneco	5	4	4	6	8	15	2	28	17	30	11.9
Total/Year	172	142	314	144	165	309	122	155	122	153	
Average/Yr	17.2	14.2	31.4	14.4	16.5	30.9	12.2	15.5	12.2	15.3	

Key: shading indicates net loss

**APPENDIX G: TABLES 1-11. COMPANIES' TYPES OF FIGURES BY
COMPANY AND YEAR**

Table G-1. Companies' Bar Graphs by Year

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
Alcoa	-	-	-	-	-	-	1	-	-	-
DuPont	-	-	-	-	-	12	10	10	-	-
Exxon	-	-	-	-	-	-	-	-	-	-
GE	-	-	-	-	-	-	-	-	-	-
GM	-	-	-	-	-	-	-	-	-	-
IBM	-	-	-	-	-	-	-	-	-	-
Int. Paper	-	-	-	-	14	-	-	-	-	-
Kodak	-	4	-	-	-	-	3	-	-	-
P Morris	-	-	-	-	-	-	2	1	-	-
Tenneco	-	-	-	-	-	12	10	10	-	-

Table G-2. Companies' Column Graphs by Year

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
Alcoa	24	5	8	8	10	10	7	10	3	3
DuPont	24	14	15	15	8	2	3	2	10	10
Exxon	1	1	-	-	-	-	3	3	4	8*
GE	7	5	3	5	6	7	6	5	7	7
GM	-	-	7	-	2	-	-	1	2	2
IBM	1	2	2	3	3-c	3-c	3	2	3	3
Int. Paper	1	1-3d	2-3d	8	-	6	3	5	4	4
Kodak	7	-	4	4	5	4	-	3	-	3-3d
P Morris		5+7w/line	4+7w/line	5+4w/line	4+4w/line	3+4w/line	1+3w/line	1+1w/line	-	5
Tenneco	24	14	15	15	8	2	3	2	10	10

Key: shading indicates net loss, *= with a line graph combined

Table G-3. Companies' Grouped Bar /Column Graphs by Years

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
Alcoa	5 c	4 c	3 c	3 c	5 c	5 c	2 c	2c	-	2 c
DuPont	-	1c, 1c de	1c de	1c de	1c de	1c	2c	2c	2c	-
Exxon	3 c	3 c	4 c	5 c	5 c	4 c	2 c	2 c	2 c	2 c
GE	1c, 1 c di	-	2c	2c	7c	2c	3c	1c	1c	1c
GM	-	-	-	-	-	-	-	-	-	-
IBM	3c	2c	2c	2c	2c	2c	1 de	1 de	-	-
Int. Paper	-	-	-	-	-	1c	-	-	-	-
Kodak	-	-	-	-	-	-	-	-	-	-
P Morris	-	-	-	-	-	-	-	-	1c	1c
Tenneco	-	-	-	-	-	-	-	-	-	-

Key: shading indicates net loss year, de=deviated, di= divided, b= bar, c= column

Table G-4. Companies Divided Bar /Column Graphs by Year

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
Alcoa	6 c	8 c	6 c	4 c	7 c	5 c	8 c	8 c	1 c	3 c
DuPont	1c	1c	1c	1c	7c	1b,1c	3c	1c	1c	-
Exxon	16 c	16 c	16 c	16 c	13 c*	10 c†	1 c*	1 c*	1 c*	1 c*
GE	3c,1c de	2	3c	2c	2c	1c	3c	6c	4c	3c
GM	-	-	-	-	-	-	-	1c	-	1c
IBM	1c	1c	1c	1c	1c	2c	2c	2c	1c	-
Int. Paper	3c 1bar	2 bar 3c	1-3d	-	-	8 c	8 c	7 c	12 c	12 c
Kodak	3 c	3 b	3 c	3 c	2 c	2 c	1 c	1 c	-	-
P Morris	-	2 c	3c	5 c	5 c	5c	3 b, 2 c	2 b, 3 c	2 b	1 c*
Tenneco	-	-	-	-	-	-	-	-	-	-

Key: shading indicates net loss, * combined with a one-line graph, †combined with a two-line graph, b= bar, c=column

Table G-5. Companies' Drawings by Year

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
Alcoa	-	-	3	-	2	3	5	-	11	-
DuPont	-	-	6	-	-	-	-	10	-	-
Exxon	-	-	-	-	-	-	-	-	-	-
GE	-	-	-	-	-	-	-	-	-	-
GM	2	-	-	2	-	-	-	-	-	-
IBM	-	-	-	-	-	-	-	-	4	18*
Int. Paper	-	-	13	12	-	-	-	-	-	-
Kodak	-	-	-	-	-	-	-	-	-	-
P Morris	-	-	-	-	-	-	-	-	-	-
Tenneco	-	-	6	-	-	-	-	10	-	-

Key: shading indicates net loss, * =cartoon images

Table G-6. Companies' Surface Graphs by Year

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
Alcoa	5	-	-	-	2	-	-	1	-	-
DuPont	-	-	-	-	-	-	4-3d	-	-	-
Exxon	-	-	-	-	-	-	-	-	-	2
GE	-	-	-	-	-	-	-	-	-	-
GM	-	-	-	-	1	-	-	-	-	-
IBM	-	-	-	-	-	-	-	-	-	-
Int. Paper	-	-	-	-	-	-	-	-	-	-
Kodak	-	-	-	-	-	-	-	-	2	-
P Morris	9+6w/line	-	-	3	3	1	1	1	1	3
Tenneco	-	-	-	-	-	-	4 3d	4 3d	-	-

Key: shading indicates net loss, 3d= three dimensional,

Table G-7. Companies' Pictograms by Year

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
Alcoa	2	2	-	-	-	-	4	-	-	-
DuPont	-	-	-	-	-	-	-	-	-	-
Exxon	-	-	-	-	-	-	-	-	-	-
GE	-	-	-	-	-	-	-	-	-	-
GM	-	-	-	1	1	-	-	-	-	-
IBM	-	-	-	-	-	-	-	-	-	-
Int. Paper	-	-	-	-	-	-	-	-	-	-
Kodak	-	-	-	-	-	-	-	-	-	-
P Morris	-	-	-	-	-	-	-	-	-	-
Tenneco	-	-	-	-	-	-	-	-	-	-

Table G-8. Companies' Maps by Year

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
Alcoa	-	-	1	-	1	-	2	-	-	-
DuPont	-	-	-	-	-	-	-	-	5	-
Exxon	-	-	-	-	-	-	-	-	-	-
GE	-	-	-	-	-	-	-	-	-	-
GM	-	-	-	-	-	-	-	-	-	-
IBM	-	-	-	1	-	-	-	2	-	-
Int. Paper	-	-	-	-	-	2	-	-	-	1
Kodak	2	-	-	-	-	-	-	-	-	-
P Morris	-	-	-	-	-	-	-	-	-	-
Tenneco	-	-	-	-	-	-	-	-	5	-

Key: shading indicates net loss

Table G-9. Companies' Line Graphs by Year

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
Alcoa	3	3	3	3	4	2	-	-	3	-
DuPont	-	-	-	-	-	5	-	-	-	1
Exxon	2 w/c	2 w/c	2 w/c	3 w/c	2 w/c	2 w/c	-	-	1	2
GE	-	-	-	-	-	-	-	-	-	-
GM	-	-	-	-	-	-	-	-	1	1
IBM	6	6	-	-	-	-	-	-	-	-
Int. Paper	5	-	-	-	-	-	-	-	-	-
Kodak	-	-	-	-	-	-	-	-	-	-
P Morris	-	-	-	-	-	-	-	-	-	1
Tenneco	-	-	-	-	-	5	-	-	-	-

Key: shading indicates net loss, w/c= with column

Table G-10. Companies' Pie Graphs by Year

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
Alcoa	3	7	2	1	5	5	3	3	1	2
DuPont	-	-	1	2	5	-	-	-	-	-
Exxon	-	-	-	-	-	-	-	-	-	1
GE	-	-	-	-	-	-	-	-	-	-
GM	1	1	1	-	-	-	-	-	-	-
IBM	2	2	2	2	2	-	-	-	-	-
Int. Paper	-	10-3d	10	-	5	7	5	5	5	-
Kodak	-	-	-	-	-	-	-	-	-	1-3d
P Morris	-	-	-	3	3	4	-	5	-	8
Tenneco	-	-	1	2	5	-	-	-	-	-

Key: shading indicates net loss, 3d= three dimensional

Table G-11. Companies' Miscellaneous Figures by Year

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
Alcoa	2 100% bar time line	2 dev. & grouped bar	2 dev. & grouped bar	-	-	-	-	-	-	-
	-	-	3 flow charts	-	-	-	-	-	-	-
DuPont	-	2 dev. & grouped bar	2 dev. & grouped bar	2 dev. & grouped bar	-	-	-	-	org. chart	-
	-	-	3 time lines	-	-	-	-	-	-	-
Exxon	1 dev. bar	1 dev. bar	1 dev. bar	1 rend.	-	-	-	-	-	-
GE	1 grouped, dev. col, 1 dev. col	2 dev. col	1 dev. col.	-	1 dev. column	1 flow chart	-	-	-	-
	-	-	-	-	-	-	-	-	-	-
GM	-	-	-	1 rend. 4 logos	1 dev. col. 2 rend.	1 logo	7 rend.	1 100% col. 8 rend. 1 org. chart	1 dev. col. 8 logos	1 dev. col. 1 rend.
	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	2 flow charts	-	-
IBM	-	-	-	-	-	18 rend.	1 dev. col	1 dev. col	-	1 dev. col
Int. Paper	-	-	-	-	-	-	-	1 dev. col	1 dev. col	1 dev. col
Kodak	-	-	-	-	-	-	-	-	-	-
P Morris	-	-	-	-	-	-	-	-	10 logos	-
Tenneco	-	-	3 time lines	-	-	-	-	-	1 org. chart	-

Key: shading indicates net loss year, dev= deviated column, rend.= rendering, org= organization

**APPENDIX H: TABLES 1-10. SIZES OF ANNUAL REPORT
PHOTOGRAPHS BY COMPANY, YEAR, AND
ANNUAL REPORT SECTION**

Table H-1. Yearly Sizes of Photographs in Alcoa's Annual Reports, 1985-1994

	Financial Highlights	Letter to Stockholders	Narrative/Scope of Operations	Managements' Discussion and Analysis	Board of Directors	Supplemental Data
1985	-	3x4	6.06x3.19	-	-	-
1986	-	2.12x3.19	full page 1.50x2.75,3.12x2.19	-	-	-
1987	-	-	3.81x5.06	-	-	-
1988	full page	full page	full page 1.50x2.75 8.25x5.75 (double page)	-	-	-
1989	-	2.75x4	8x7.50,2.12x1.50 1x1.50	-	-	-
1990	-	-	2 full pages, full page 5x3.75,3.50x6.12 2.50x3.88,4.75x3.88 2.50x3.50,5x4.12 3.50x5.12,4.88x6.12 1.25x1.88,4.75x3.38 2.50x2.50,3.50x1.75	full page 1.12x1.50	-	-
1991	-	2.38x3.38	16.50x5.50,7.38x5 5x2.50,2.38x2.12 4.25x3.25,4.88x3.38 7.38x3.25 full page	2x2.50,3.25x1.75 1x1.50,2.38x1.50 2.50x1.50,1.50x1.50	-	-

Key: shading indicates net loss

Continued

Table H-1. Yearly Sizes of Photographs in Alcoa's Annual Reports, 1985-1994 Continued

	Financial Highlights	Letter to Stockholders	Narrative/Scope of Operations	Managements' Discussion and Analysis	Board of Directors	Supplemental Data
1992	-	full page 2x3, 2.12x3 1.75x2.38	double page full page 2.5	-	-	-
1993	-	4.25x11.25	3.12x3.12	-	-	-
1994	-	1.06x1.63 1.75x2.50	2.25x1.63, 1.63x2.25	-	-	-

Key: shading indicates net loss

Table H-2. Yearly Sizes of Photographs in DuPont's Annual Reports, 1985-1994

	Financial Highlights	Letter to Stockholders	Narrative/Scope of Operations	Managements' Discussion and Analysis	Board of Directors	Supplemental Data
1985	-	2.76x2.25	2x3,6x8.25,4x2.38	-	-	-
1986	-	2.63x2,2.63x2.38,		-	-	-
1987	-	2.63x3.25	3.38x3.38,2.38x3.38 3.38x2.38,1x1,1.25x.75 2.25x.75,1.12x1.88 .75x1.75,1.75x1	-	-	-
1988	-	4.88x6.75	3x4,6.38x9.38,1.50x3.88 3.38x3.88,4x3.88 2.38x2.38,2.38x3.25 4.75x3.88	-	-	-
1989	-	7x4.38 2.50x1.50 1.50x2.25 4.88x6.38	8.25x5.12,2.12x1.63 3.75x2.50,2x2.63 9.12x4.75,7.50x5.25 2.38x1.75,2.12x3.38 5.25x5.25,8.25x5.50 2.75x3.63,3.63x3.12	-	-	-

Key: shading indicates net loss

Continued

Table H-2. Yearly Sizes of Photographs in DuPont's Annual Reports, 1985-1994 Continued

	Financial Highlights	Letter to Stockholders	Narrative/Scope of Operations	Managements' Discussion and Analysis	Board of Directors	Supplemental Data
1990	-	3.63x3.75 3.63x3.88 1.88x1.88	2.25x6,5.76x10.50 3x3.12,1.63x1.88 5x2.50,2x2.12 7.25x4,3.63x3.76 5.25x5.50,7x3.63 1.63x2,2.76x3 3x2.63,8.25x10.76 2.50x2.76,2.76x3.63 2.63x2.63,2x3 4x4.25,4x7,11.25x10.88 4.25x9,2.12x2.88 1.76x2.12,4x2.50 6.12x10.76	-	-	-
1991	-	4.63x3.50 2.76x2.38	3x3.25,3.12x3 3x2.50,2.50x3.25 2x2.76,2.25x3.88 3.50x2.25,4.12x3.25 2.88x4,2.12x3 1.50x3,3.38x3.12 2.50x3.50,2x2.76 2.50x3.50,2x2 2.25x3.25,2.63x2.50 2.50x2.50	-	-	-
1992	-	2x2	2x2,2.25x2,3.38x3.38 2.38x3.76,1.38x1.38 3x3.88,1.50x1.50 4.38x2.88,2.38x2.38	-	-	-

Key: shading indicates net loss

Continued

Table H-2. Yearly Sizes of Photographs in DuPont's Annual Reports, 1985-1994 Continued

	Financial Highlights	Letter to Stockholders	Narrative/Scope of Operations	Managements' Discussion and Analysis	Board of Directors	Supplemental Data
1993	-	4.63x3.12 3.12x5.12	3.25x3,3x3,3.12x3 2.25x1.25,2.12x2.38 1.38x2.50	-	-	-
1994	-	4.12x5.38 1.25x1.25	4x5.50,5.12x8 1.12x1.12,1.25x1.25 2x2.76,4x2.76	-	-	-

Key: shading indicates net loss

Table H-3. Yearly Sizes of Photographs in Exxon's Annual Reports, 1985-1994

	Financial Highlights	Letter to Stockholders	Narrative/Scope of Operations	Managements' Discussion and Analysis	Board of Directors	Supplemental Data
1985	5.88x3.75	5.63x4	10.50x5,3.63x2.63 4.25x3,10.50x5.25 4.25x3.75,3.63x5.50 3.75x3.12,2x3.25 4.25x2.88,10.50x5.38 3.75x2.50,1.75x3 3.75x2,16.50x3.12 8.25x5.25,3.25x3.75 2.38x3.63,1.75x2 8.25x3.12,3.63x2 5.50x3.50	-	-	-
1986	2x2	1.50x2	full page 1.50x2,1.50x1.38 1.50x1.75,1.50x2.25 1.50x1.63,1.50x1.25	-	-	-
1987	3x4.25	2.50x3.25	4.38x6,5.25x6.50 2.50x4.12,6x3.38 5.88x4.50,4.50x2.38 5.25x4.6x4,5.25x4.25 5.88x3.63,4.38x3.50 2.50x3.88,4.38x6	-	-	-
1988	-	2.12x3.50	2.50x5.88,5.25x6,3x4.63 5.25x3.38,3.63x4.50 5.88x4.12,2.50x3.63 3.12x5,3x4,6x6.75,3.25x4 5.25x3.88,2.12x3.50 4.63x3,3.38x2.25	-	-	-

Key: shading indicates net loss

Continued

Table H-3. Yearly Sizes of Photographs in Exxon's Annual Reports, 1985-1994 Continued

	Financial Highlights	Letter to Stockholders	Narrative/Scope of Operations	Managements' Discussion and Analysis	Board of Directors	Supplemental Data
1989	-	2.75x1.75 2.50x1.75 1.50x1.88 1.50x2 4.25x3.50	4.50x3.25,7.25x5.38 4.50x3,3x2.50 3x2.12,3.38x2.50 2.12x2.88,4.25x3.50 5.63x6.75,5.50x7.75 5.63x4,3.12x2.63 8.63x5.38,4.63x7.63 2.25x4.63,7.38x4.88 5.63x5,5.75x4.25 2.88x2.12	-	-	-
1990	3.25x4.88	3.50x4.50	full page 3.88x2.88,5.50x4.75 6.12x5.38,4.25x5 4x6,2.25x4.12 2x3.12,5.50x6.50 3.63x5.50,3.25x2.12 6.25x4.75,7.12x5.38 3.50x3.38,1.63x2.12 6.25x3.12,6.50x2.88 4.75x3.50	-	-	-

Key: shading indicates net loss

Continued

Table H-3. Yearly Sizes of Photographs in Exxon's Annual Reports, 1985-1994 Continued

	Financial Highlights	Letter to Stockholders	Narrative/Scope of Operations	Managements' Discussion and Analysis	Board of Directors	Supplemental Data
1991	-	4x5.12	6.50x9.75,3.63x4.75 6x6.25,2.88x2.38 4.63x3.75,6.38x9.75 6.75x8.50,8.38x5.88 5.88x4.75,5.88x4.38 6.38x9.75,6x7.50 4.88x6.12,3.38x4.88 4.25x2.75,2.75x2.75 2.38x4.38,11x6.25 8.38x5.63,5.75x2.75 5.75x5.12,9.88x7 3x4.25,6.88x5.50 4.75x9.63,9x8.75 6.50x6	-	-	-
1992	-	4.38x4.50	7.25x7.25,3x2.75 4.63x4.75,7.75x3.63 8.50x6.50,4.25x3.25 6x5.63,3x3.75 1.88x2.50,2.88x3.50 5.88x2.63,4.63x5.12 8x2.38,3.25x3.75 2.88x1.63,6.75x5.50 3.38x4.75,4.63x2.25 8x5.50	-	-	-

Key: shading indicates net loss

Continued

Table H-3. Yearly Sizes of Photographs in Exxon's Annual Reports, 1985-1994 Continued

	Financial Highlights	Letter to Stockholders	Narrative/Scope of Operations	Managements' Discussion and Analysis	Board of Directors	Supplemental Data
1993	-	4.25x4	12.25x3.63,9.50x6 4.75x3,1.50x1.88 1.75x1.12,3.12x2.25 3.25x2.25,3.63x2.38 2.12x3,1.50x2.38 2.38x1.50,4.25x6 4.63x3.12	-	-	-
1994	-	4.88x4.38	full page 2.38x3.12,3x4.50 5.50x4,4.88x3.12 8.25x5.50,3.88x4.50	-	-	-

Key: shading indicates net loss

Table H-4. Yearly Sizes of Photographs in General Electric's Annual Reports, 1985-1994

	Financial Highlights	Letter to Stockholders	Narrative/Scope of Operations	Managements' Discussion and Analysis	Board of Directors	Supplemental Data
1985	-	3.12x2.12	2.12x3,4.25x6.12 4.75x7.25,8.50x5.63 5.38x6.12,4.75x6.88 8.50x5.75,4x5.88 2x2.88,5.63x5.88 4.25x5.88,3x2.12 3.38x2.25,4.63x7.25 4.12x3.25,8.50x5.38 2.25x3.25,4.75x3.50 2.75x3.12,4.25x5.75 4.25x6.50,2.12x3.25 4.12x2.75	-	-	-
1986	-	4.25x6 4.88x3.12 2.38x3.63	2.25x1.75,2x1.75 2.38x3.38,1.38x1.25 4.88x3.12,7.75x5.38 2.38x3	-	-	1.88x2.38 1.75x1.88 1.75x1.38 1.75x1.38
1987	2.38x1.63	3.88x6	3.50x3.75,8.50x8.25 5.63x3.75,2x2.75 3.12x3.75,3.63x2.63 3.50x3.75,8.50x5.75 4.38x2.88,3.63x2.50 3.88x2.50,5.63x3.63 4.25x2.88,3.88x2.63	-	-	1.75x2 1.50x1.38 1.50x1.38
1988	-	3.25x4.50	7.12x3,2.12x3 4.63x3	-	-	1.63x1.75

Key: shading indicates net loss

Continued

Table H-4. Yearly Sizes of Photographs in General Electric's Annual Reports, 1985-1994 Continued

	Financial Highlights	Letter to Stockholders	Narrative/Scope of Operations	Managements' Discussion and Analysis	Board of Directors	Supplemental Data
1989	-	5.25x3.63 3x3.50	4x5.25,4.12x3.12 4.50x1.75,4.25x3 2.63x2,3x3.75 1.25x1.88,4.25x2.88 4.25x3,3x4.25 2x2,3x2.12,3x2 4.25x3.25	-	-	1.38x1.63
1990	-	3.63x4 5.75x1.25	3.63x5.63,5.63x3.63 5.50x3.75,3.38x2.50 1.75x2.63	-	-	1.12x1.75 (19) 1.12x1.75 (5)
1991	-	3.25x4.50 4.50x3.38 2x1.75 2.88x1.88	1x1.50,4.63x3.38 1.75x2.63	-	-	1.25x1.75
1992	-	6.25x3.50 4.63x3.38	4x4.12,4.38x4 4.63x3.25,2.63x2.88 1x1.50,3.50x1.88 1.50x1.63,4x2.25	-	-	-
1993	-	6.25x3.88 4.63x3.38 2.50x1.88 4.12x4.12	2.94x2.75,3.75x5.63 3.50x1.88	-	-	-

Key: shading indicates net loss

Continued

Table H-4. Yearly Sizes of Photographs in General Electric's Annual Reports, 1985-1994 Continued

	Financial Highlights	Letter to Stockholders	Narrative/Scope of Operations	Managements' Discussion and Analysis	Board of Directors	Supplemental Data
1994	-	6.25x3.88	3.63x5.50,4.38x3 3.12x2.50,2.63x3.75 3.63x3.12,3x3,4.25x3.75 1.12x1.63,4.63x3.38 3.38x4.50,5x3.38 3.63x4.50,5x3.38 3.38x2.25,3.50x5.75 3.38x2.63,4.12x3 4.38x4,3x3,2.50x3.63	-	-	1.12x1.75 1.12x1.75

Key: shading indicates net loss

Table H-5. Yearly Sizes of Photographs in General Motors' Annual Reports, 1985-1994

	Financial Highlights	Letter to Stockholders	Narrative/Scope of Operations	Managements' Discussion and Analysis	Board of Directors	Supplemental Data
1985	-	2.50x3.76 2.50x3.38	12.50x5.50,2.88x2.12 2.88x6.25,5.38x2.63 8x3.75,7.50x5 5.63x3.38,6x3.12 7.50x5.12,4.88x3.12 5.75x4.25,6x2.88 4.88x4,4.88x2.50	8.75x4.50,3.38x2.88 7.50x4.12,15.75x4.75 2.75x3,5.50x9.38 4.88x3.88,2.88x3.12 4.88x3.88	1x1.25	-
1986	-	2.25x6.12 2.50x6.12	4.88x7.63,8x6.50 5.25x3.50,7.75x5.25 4.88x2.38,7.50x4.50 5.50x7.75,8.50x4.50 5x4.50,7.63x4 2.38x4.50,2.75x4.50 5.75x4.50,4.76x4 3.50x4.88,3x2.75 3x3.25,3.12x2.75 3.12x4,2.25x3.12 2.25x3.75,7.25x4.25 4.63x5.88,5x2.63 5.38x2.50,2.88x2.63 8x3,4.38x4.63	-	-	-
1987	-	1.38x1.88	2.38x2,4.75x2.88 4.75x1.88,8.50x2.75 8.50x5.75,1.63x2.50 1.75x1.75,1.25x.88 3x1.88,2.38x1.88 11x8,7.75x5.63	-	1.50x1.50	-

Key: shading indicates net loss

Continued

Table H-5. Yearly Sizes of Photographs in General Motors' Annual Reports, 1985-1994 Continued

	Financial Highlights	Letter to Stockholders	Narrative/Scope of Operations	Managements' Discussion and Analysis	Board of Directors	Supplemental Data
1987	-		2.38x1.50,2.38x1.12 .88x1.12,.88x1.50 7.50x6,2.50x1.38 1.38x1.38,1.38x.88 1.25x1,7.25x5.50 3.88x1.38,1.75x1.50 2x2.88,5.50x1.63 3.38x1.75,1.88x1.75 7.75x7.75,3.38x2.12 3.88x3.63,6.50x8.12 7.75x6	-	-	-
1988	-	3.50x2.38	3.50x4.50,4x5.50 4.12x3,1.88x2.50 4.12x1.75,5.63x4.63 3.88x1.75,1.63x1.12 2.50x3.75,1.88x1.63 7.25x2.25,8.38x9.50 .88x1.25x1.25x1.25 1.88x1.25,.75x.75	-	5x2.63	-
1989	-	3.38x3.88	3.38x6.75,4x3.75 3.50x2.63,2.63x2.75 1.88x1.88,8.50x5.63 4x3.25,2.75x2.75 4.12x3.75,2.88x2.75 3.25x2.38,7x5.38 8.50x3.63,8.50x3.88 8.50x3.75,8.50x4.12 8.50x4.25	-	1.50x1.38	-

Key: shading indicates net loss

Continued

Table H-5. Yearly Sizes of Photographs in General Motors' Annual Reports, 1985-1994 Continued

	Financial Highlights	Letter to Stockholders	Narrative/Scope of Operations	Managements' Discussion and Analysis	Board of Directors	Supplemental Data
1990	-		11.75x6.75,3x3 3.63x3.63,2x3.25 3.50x3.25,1.25x1.75 7.50x3.25,7.75x2.50 7.25x3.75,2x2.88	-	-	-
1991	-	4.38x4.50	3.25x1.63,3.50x2 3.88x1.50,4.63x2 3.50x4.50,2.25x5 1.50x6,3.50x5.88 2.38x5.75,3.38x5.75 2.50x6,2.75x5.50 2.12x4.38,6x3.25 2.12x2.12,2.38x.88 2.50x1.38,7.63x2.38 2.25x4.25,6.38x5.50 1.25x4.75,6.38x5.88 5.88x2.88,7.88x2.25	-	-	-
1992	-	2.25x2.38 8.50x11	5.63x3,5.12x2.12 4x2,6.50x1.75 7x2,6.50x2 5.75x2.75,6x2.63	-	-	-

Continued

Key: shading indicates net loss

Table H-5. Yearly Sizes of Photographs in General Motors' Annual Reports, 1985-1994 Continued

	Financial Highlights	Letter to Stockholders	Narrative/Scope of Operations	Managements' Discussion and Analysis	Board of Directors	Supplemental Data
1993	-	4x5.25	4.75x4.88,2.25x4.50 3.63x4.25,5.38x3.88 3.88x3.25,3.50x4.38 7.25x4,8.25x3 5.25x2.75,6.25x4.75 7.25x4.88,5.25x5.50 7.50xz5.25,7.25x4.50 7.25x5.38	-	3.25x3	-
1994	-		2.75x2.38,3.25x2.50 4x2.50,4.88x2.88 4.50x3,7.50x5.38 7.63x2.63,7.50x4.75 6.75x3,3.25x2.25 1.75x1.88,7.50x5.63 7.50x2.50,7.50x5.88 7.25x3,7.50x4.88 7.50x2.38,1.75x1.63 5.50x4,6.25x2.50 5.75x2,2.38x1.63 3.50x3.75,7.50x5.50 15.50x4.75,3.50x1.63 5.75x2.38,4.50x2.25 4.50x1.50,6.38x2.88 7.12x2.50,2.25x1.75 4.50x3.12,2.63x2.38 2.38x2.38	-	-	-

Key: shading indicates net loss

Table H-6. Yearly Sizes of Photographs in IBM's Annual Reports, 1985-1994

	Financial Highlights	Letter to Stockholders	Narrative/Scope of Operations	Managements' Discussion and Analysis	Board of Directors	Supplemental Data
1985	-	5.38x5.50	5.25x3.63,12.12x8.63 4.25x2.88,2.50x3.25 12x8.63,2.63x3.63 2.63x2.63,5.38x3 4.25x2.63,5.75x4 2.63x4.38,5.14x4.50 2.63x3.12,2.63x4 2.63x4.50	-	-	-
1986	-	4.50x3.25	9x10.50,13x10.50 2.63x4,3.88x2.63 2.63x3.63,2.63x3.63 9x10.50,3.63x2.63	-	-	-
1987	-	-	14.63x10.63,5.25x3.38 2.63x3.63,2.63x2.63 3.12x2.50,5.25x4.88 4.25x2.63,2.63x2.88 5.25x4.38	-	-	-
1988	-	5x3.63	4.12x3.75,13.50x10.50 3x3.50,4x2.50 9x10.50,3x3.25 double page 1.25x1.25	-	-	-
1989	-	-	2.50x3.50,2.50x4.25 2.50x3	-	-	-

Key: shading indicates net loss

Continued

Table H-6. Yearly Sizes Photographs in IBM's Annual Reports, 1985-1994 Continued

	Financial Highlights	Letter to Stockholders	Narrative/Scope of Operations	Managements' Discussion and Analysis	Board of Directors	Supplemental Data
1990	-	3.50x2.38	5.63x3.75,3.38x1.25 1.75x1.50,1.63x2.12 13x5.25,3.25x1.63 1.12x1.12,1.63x.88 3.38x5.12,1x2.25 3.50x5.12,1.63x1.75 1.12x1.88	-	-	-
1991	-	5x4.50	full page 7x5.25,7x4.50 7x4.25,7x4.75 3x2	-	-	-
1992	-	2.75x3.50	all full page (collage of items)	-	-	-
1993	-	5.25x3.38	3x3.25,2.88x2.75 1.50x1.50,8.50x9 3x2,3.75x3.12 1.63x1.63,8x3.75 2.50x4.75,7x4.75 5.50x6,7.38x9.25 4.25x2.75,1.75x2.75 3.50x3.12	-	-	-

Key: shading indicates net loss

Continued

Table H-6. Yearly Sizes of Photographs in IBM's Annual Reports, 1985-1994 Continued

	Financial Highlights	Letter to Stockholders	Narrative/Scope of Operations	Managements' Discussion and Analysis	Board of Directors	Supplemental Data
1994	-	3.75x4.63	2.50x2.2,2x2.25 2.25x1.88,2.25x3.50 1.75x2.25,1x1.25 full page 2.12x.50,6x3.25 4.75x3.50,1.50x1.50 4.88x2.50,4.12x3.12 2.50x3.38,1.12x2.88 5.38x3.12,2x3.38 1.50x1.75,4.50x4 2x2,1.25x1.25 1.50x2.25,3.50x2.38 5.12x3.63,1.50x4.75 1.50x1.75,3x1.88 2.75x2.12,4x4 3.50x1.88,2.12x3 4.50x2.50	-	-	-

Key: shading indicates net loss

Table H-7. Yearly Sizes of Photographs in International Paper's Annual Reports, 1985-1994

	Financial Highlights	Letter to Stockholders	Narrative/Scope of Operations	Managements' Discussion and Analysis	Board of Directors	Supplemental Data
1985	-	2.50x4 1.50x2.38	6 full pages	-	-	-
1986	-		5.50x8.50,1.63x2.50 5.50x4	-	-	-
1987	-	-	8.50x7.25,3.25x2.06	-	-	-
1988	-	4.12x5.50 3.50x3	2.12x3,2.50x2.88 2.50x3.25,2.50x2.25 2.25x2.88,2.12x3 1.25x2.88,2.25x2.50 2.25x3.12,1.88x2.75 2x2.63,2.50x2	-	-	-
1989	-	-	full page 3x2.12,1.50x2.19	-	-	-
1990	full page	3.25x4.50	17.50x8.12,8.75x8.50 full page	-	-	-
1991	-	-	3.25x4,2.50x3.25 1x1.38,2.75x2.38 4x4.25	-	-	-
1992	-	-	2.88x4,2.50x3.38 4.50x3.25,3.25x3 1.75x1.75	-	-	-

Key: shading indicates net loss

Continued

Table H-7. Yearly Sizes of Photographs in International Paper's Annual Reports, 1985-1994 Continued

	Financial Highlights	Letter to Stockholders	Narrative/Scope of Operations	Managements' Discussion and Analysis	Board of Directors	Supplemental Data
1993	-	-	full page 3.25x4.25,1.50x2.25 4.38x3.12	-	3.25x3.88 3.25x4.50 5.50x4	-
1994	-	1.38x1.50	full page 8.88x5.50,11.50x11	1.38x1.88,7x10.50 2x2,1.25x3.25 1.50x1.50,1.25x1.75 5.75x7.25,1x1.12 3.25x1.75,.50x.75 10.50x7.75,2.25x2.25 1.25x1,1.38x.88 4.63x11,1.25x2.12 1.75x1.12,4.38x4.25 1.50x1.25,2.25x2.25	1.88x1.88 2.50x1.75 2.25x1.75 1x1.75 2.12x1.75 1.75x2 1.75x1.75 1.50x1.75 2.75x1.75 2.12x1.88	-

Key: shading indicates net loss

Table H-8. Yearly Sizes of Photographs in Eastman Kodak's Annual Reports, 1985-1994

	Financial Highlights	Letter to Stockholders	Narrative/Scope of Operations	Managements' Discussion and Analysis	Board of Directors	Supplemental Data
1985	-	6x3.75	4.50x5.75,2.25x3.75 7.25x5.4,75x3.38 7.25x4.50,3.63x2.25 4.75x3.25, full page 4.50x5.63,7.25x5.38 4.75x3.88,2.25x3.50 2.25x3.63,4.75x6.50 2.25x4.38 3.25x4, 2 full pages 2.25x2.50,7.25x5.12 6x4.12,7.25x4.88 4.75x3.25,2.25x3 4.75x2.50,3.75x2.38 4.75x4.25,6x4.25	-	1.12x1.50	-
1986	2.38x3.88	3.12x2.50 2x3.63 2.38x3	full page 2x1.12,3.50x6.50 1.38x3.63,4.50x4.25 1x1,5.75x3 3.12x2.25,5.75x5.63 3.12x1.88,2.50x2 5.75x4.25,2x1.25 full page 2x4.75,4.25x4.25 2x4,3.50x2,4.12x2.75 3x1.88,4x7,2.50x1.88 3.50x5.63,2x3 6.38x3.75,3.12x1.88 2x3.38,5.12x3.50	-	-	-

Key: shading indicates net loss

Continued

Table H-8. Yearly Sizes of Photographs in Eastman Kodak's Annual Reports, 1985-1994 Continued

	Financial Highlights	Letter to Stockholders	Narrative/Scope of Operations	Managements' Discussion and Analysis	Board of Directors	Supplemental Data
1986			2.50x2,4.12x2.25 3.50x2,4.12x2.88 3.50x3.25,5.75x3 2x11.75,4.50x4.12 5.75x4,5.75x3.63 4.12x4.63, 2 full pages	-	1x1.50	-
1987	-	5x3.88	5.75x9.50,5.63x4.38 5.75x9.75,4.12x3.75 4.12x2.88,4.12x3.88 2x3.25,2x2.63 2x3.12,3.50x5.63 3.50x3.38,3.50x5.25 1.38x4.88, full page 5.75x4.25,5.63x4.63 5.63x4.25,5.63x4 2x3.75,2x3,2.63x3.25 4.12x4,7.75x3.38 5.50x4.50	-	1.88x2.25	-
1988	-	4.50x5.25	6x8.50,5.75x3.63 full page 7.75x4.25,2.25x2.88 5x7.25,4.25x5.75 3.75x5,2.25x3.38 4x5.75,8x7.75 4.63x5,2.25x3.38	-	-	-

Key: shading indicates net loss

Continued

Table H-8. Sizes of Photographs in Eastman Kodak's Annual Reports, 1985-1994 Continued

	Financial Highlights	Letter to Stockholders	Narrative/Scope of Operations	Managements' Discussion and Analysis	Board of Directors	Supplemental Data
1988	-	-	4.63x6.25,7.50x4.50 4.25x3.38,7x4.75 4.38x3.75,4.25x3.50 4.75x5.75,4x4.25 3.88x4,4x6 4.75x7.63	-	-	-
1989	-	1.19x1.25 4.12x3.38	full page 1.19x3,1x1.88 1.12x.50,9.50x3.50 2.75x3.88,2.75x2.25 4.12x2.75,4.12x5.50 2.88x2.25,1.12x1.50 4.12x4.50,2.25x4 4.12x3.50,4.12x4.63 2.63x1.63,2.38x2 4.12x2.88,4.12x3.63 2.63x2.25	-	1.19x1.50	-
1990	-	7.12x5.12 7.12x4.75	7.12x4.63,7.12x5.25 full page,7.12x4.63 7.12x4.38,7.12x5 7.12x5.63,7.12x4 7.12x6.25,3.38x11 7.12x5.50,7.12x3.75	-	-	-
1991	-	3.50x4.75	1.50x1.25,full page 4.75x4.75,3.94x4.50 2.75x1.88	-	-	-

Key: shading indicates net loss

Continued

Table H-8. Sizes of Photographs in Eastman Kodak's Annual Reports, 1985-1994 Continued

	Financial Highlights	Letter to Stockholders	Narrative/Scope of Operations	Managements' Discussion and Analysis	Board of Directors	Supplemental Data
1992	.88x.88 3.12x3.63 3.12x3.88 1.63x1.63 2x1.50 3.75x2.75 3x2 2.50x1.75 4.12x4.75	3.38x3.38	5.88x5.88,2.12x4.38 2.38x4.88,5.25x3.12 1.25x1.25,3.88x4.75 1.50x1.50,3x3 1.88x1.88,2.50x2,2.38x2 2.63x1.75,7.25x3.38 3.88x3.88,2.75x2 7.50x3.12,9.50x4.38 2.88x2.88,2.50x5 3.88x6,4.88x4.88 2.75x3.38,3x7.12 7.50x6,1.88x7.12 13.75x3.75,4.12x5.88 1.12x7.12	-	1x1.25	-
1993	4.63x3.88 2.50x2.50	6x7.75	3.25x3.50,8.12x5.25 6.50x15.25,9.50x8.38 3.25x11	-	1.38x1.94	-
1994	1.63x2.38 2.56x4	4.25x1.38 2.75x1.38 4.12x1.38	5.50x8.50,2.25x1.75 2.25x1.44,2.12x3.12 3x2,2.75x2.50	-	6.25x2.75	-

Key: shading indicates net loss

Table H-9. Yearly Sizes of Photographs in Philip Morris' Annual Reports, 1985-1994

	Financial Highlights	Letter to Stockholders	Narrative/Scope of Operations	Managements' Discussion and Analysis	Board of Directors	Supplemental Data
1985	-	-	-	-	-	-
1986	-	1.88x3.25	4.12x6,6.75x5.12 6.25x8.25,2.88x2.75 7.88x4.50,5.25x6.63 6.50x6.63,5.25x5.25 3.50x2.50,6.75x7.38 4.88x8.50,8.50x6.12 4.50x4,1.50x1.75 2.25x1.50,3.25x4.63 3.25x4.38,6.88x5.12	-	1.38x1.75	-
1987	2x1.25 3.63x2.25	2x3.63	2.12x3.38,5x3.38 2.50x3.63,5x3.38 3.75x3,4.75x3.25 2.75x3.63,5x3.38 4x3.50,3.50x3	-	1.25x2.25 2.38x1.75	-
1988	-	1.63x3.25 1.63x2.88 1.63x2.50	-	-	1.38x1.75	-
1989	-	3.75x2.38	5.50x1.50,5.50x1.63 5.12x1.63,5.38x1.63 5.88x1.50,2.12x2.75 3.38x2.25,2.12x2.25 2.12x1.75	-	1.38x1.75 3.88x3.12	-

Key: shading indicates net loss

Continued

Table H-9. Yearly Sizes of Photographs in Philip Morris' Annual Reports, 1985-1994 Continued

	Financial Highlights	Letter to Stockholders	Narrative/Scope of Operations	Managements' Discussion and Analysis	Board of Directors	Supplemental Data
1990	-	3x2	2x1,5.63x1.50 2.25x3.25,2x1.50 3.50x2.25,2.25x2.88 2x3.25	-	1.75x2.50 3.75x2.50	-
1991	-	4.88x4 2.25x3.75	2.50x2.75,2.50x3 7.75x1.75,8.38x8.38 2.38x3.25,2.38x2.50 4.88x4.50	-	1.75x2.50	-
1992	-	3.50x3.63	5.88x5.25,2.75x1.88 1.75x2.75,6.88x4.38 1.75x2.38,2.50x3.12 7.38x5,5.75x4 4.75x3.75,14x2.50 5.75x4,2x2.25 4.88x5,4.38x6.88 3.50x2.50,4.88x3 5.25x2.38,3x2 2.25x2.50,2.25x2.25	1.75x2.50	-	-
1993	4.25x2.38 4.75x4 5.50x3.12 3.75x4	-	3.50x4.75,1.63x2.25 2.25x2.75,1.75x3 2.25x2.50,2.25x3 3.50x3.88,6x9 8.50x4.88,3.50x3.50 5.25x3.50	-	5.63x2.58 4x2.63 4.50x2.63	-

Key: shading indicates net loss

Continued

Table H-9. Yearly Sizes of Photographs in Philip Morris' Annual Reports, 1985-1994, by Report Section
Continued († indicates net loss year)

	Financial Highlights	Letter to Stockholders	Narrative/Scope of Operations	MD&A	Board of Directors	Supplemental Data
1994	7.50x4.25 7.38x4.50 8x4.50 7.50x4.75	1.75x2.50	4x3.50,4x3.25 4.63x4.25,4.63x3.12 4x4,4.25x4.63 5.63x4,5.25x7 4x1.12,4.75x4.75 5.50x4.25,6.50x4.38 5.25x3.75,3.75x1.25 5x3.25	-	-	-

Table LVII. Sizes of Photographs in Philip Morris' Annual Reports, 1985-1994 Continued

	Financial Highlights	Letter to Stockholders	Narrative/Scope of Operations	Managements' Discussion and Analysis	Board of Directors	Supplemental Data
1994	7.50x4.25 7.38x4.50 8x4.50 7.50x4.75	1.75x2.50	4x3.50,4x3.25 4.63x4.25,4.63x3.12 4x4,4.25x4.63 5.63x4,5.25x7 4x1.12,4.75x4.75 5.50x4.25,6.50x4.38 5.25x3.75,3.75x1.25 5x3.25	-	-	-

Key: shading indicates net loss

Table H-10. Yearly Sizes of Photographs in Tenneco's Annual Reports, 1985-1994

	Financial Highlights	Letter to Stockholders	Narrative/Scope of Operations	Managements' Discussion and Analysis	Board of Directors	Supplemental Data
1985	-	4.75x6.38 7.25x5	full page 2.25x4.50,7.25x3.63 4.75x3.75,4.75x3.50 4.75x5.75,7.25x5.75 4.75x6.88,4.75x4.88 4.75x4,2.25x3.75	-	-	-
1986	-	4.63x4.63 4.63x3.63 4.63x3	5.75x8.88,4.63x4 4.88x4.63,2.75x3.50 4.63x5.88,2.75x4.38 4.63x2,1.75x1.50	-	-	-
1987	-	3.38x5.38 2.25x2.50 6.25x8.50	4.38x2.50,5.75x3.75 2.75x3.12,2.75x4.63 2.75x3.50,4.38x4	-	-	-
1988	-	4.25x7 4.12x4	full page 2.75x2.50,1.63x2.75 4.25x2.25,6x4 4.25x6.50,1.25x1.25	-	-	-
1989	-	5.38x5.25	15x5.50,7.25x3.38 3.50x2.75,15x6.25 3.50x4.88,3.50x4.12 15x4.75,7.25x4.75 7.25x4.50,3.63x4 15x5,7.25x2.50 15x5.25,3.50x3.50 7.25x3	-	1.19x1.38 3.50x6.88 7.25x3.88 2.25x4.25	-

Key: shading indicates net loss

Continued

Table H-10. Yearly Sizes of Photographs in Tenneco's Annual Reports, 1985-1994 Continued

	Financial Highlights	Letter to Stockholders	Narrative/Scope of Operations	Managements' Discussion and Analysis	Board of Directors	Supplemental Data
1990	-	6.88x5	9.50x6.25,1.38x.75 9.38x6.88,2.50x1.50 2.38x3.50,1.50x2.50 9.25x3.88,3.50x2.38 3x2.12,9.50x6.38 4.50x2.63,2.25x3.50 9.50x6.75,4.25x3.12 9.50x6.50	-	-	-
1991	-	5x8.75 3.38x3.50	3.38x3.38,1.75x1.75	-	-	-
1992	-	5.25x6		-	-	-
1993	2.38x1 2.38x1.25 1.12x1.50	5x7.25	2x4.63,8.50x6.25 1.50x2.12,1.50x1.75 1.25x4,4.88x3.38 2.12x6.25,6.25x7.25 5x4,8.50x7.38 3.88x3.38,8.50x8.38 2x6,6.50x8.25	-	-	-
1994	-	-	full page 1.50x10,1.75x1.38 2.50x2,3.25x2 2.88x1.75,4.25x5 2.50x1.75,3.50x3.50	-	-	-

Key: shading indicates net loss

**APPENDIX I: TABLES 1-10. SIZES OF ANNUAL REPORT FIGURES
BY COMPANY, YEAR, AND ANNUAL REPORT SECTION**

Table I-1. Yearly Sizes of Figures in Alcoa's Annual Reports, 1985-1994 (excluding photographs)

	Financial Highlights	Letter to Stockholders	Narrative/Scope of Operations	Managements' Discussion and Analysis	Board of Directors	Supplemental Data
1985	1.25x1.25,3.76x1.50 cg 4x4 sg 4x4,3.76x2.63 lg 3.76x2.63 cg	3.76x2.63 cg	1.76x4.25,2x4 cg 1.76x4,2x4 sg 1.50x2 cg 3.25x1 p 1.76x5.63 dr	-	-	-
1986	2.38x3.25 lg 2.50x3.25 cg	2.38x3.25 cg	1.76x1.76,1.63x4.25 cg 1.63x3.25,1.50x5.25 cg 3.50x2,1x1,2x1.76 p 6.25x3,1.50x2.76 dr 1.50x3.25,3.31x3.76 pc 6.76x5.50 mp 9x3,1.63x8.25 ch 4.25x4.5 ch	3.38x4.12,2.50x3.25 lg 2.50x3.25,2.38x3.25 cg	-	-
1987	-	3.63x3.25 cg	2.50x3.25 p 2.50x2.88,2.50x2.06 cg	3.63x3.25 cg 3.63x3.25 lg	-	-
1988	-	2.25x3.50 cg	-	3.76x5.50 p 2.50x2.25,2.25x3.50 cg	-	-

Key: shading indicates net loss

Continued

Table I-1. Yearly Sizes of Figures in Alcoa's Annual Reports, 1985-1994 (excluding photographs)
Continued

	Financial Highlights	Letter to Stockholders	Narrative/Scope of Operations	Managements' Discussion and Analysis	Board of Directors	Supplemental Data
1989	1.76x3.12 p	2.76x4 p 2x3,2x2.50 cg	8x7.50,2.12x1.50 p 1x1.50 p 1x2,1x1.88 lg 1x1.76 sg 2.25x1.25,1.25x1.25 d 1x2.25,1x1.76 cg 1.38x1.50 mp	2x2.12 p 1.76x2.25,1.76x2.76 cg 1.76x3 cg	-	-
1990	4.12x2 p	2.88x2.25 cg 3.25x2.63 cg 2.88x2.50 cg	2.50x2,1.25x2.63 lg 1.25x2.25,2.25x2 cg 2.25x2 cg 2.50x2.25,1.50x2.12 dr 7.38x3.76 dr	2x2 p 2x1.76,2.88x2.38 cg 2.88x2.76,2.12x2.76 cg 2.88x2.76 cg	-	-
1991	1.63x3,1.63x3.12 p	3.76x4.25,3.76x4.25 cg	5x2,8x5.25 dr 5.76x3.25,2.25x2.25 dr 2.50x4.12,2.50x4 pc 2.25x3.50,3x1.76 pc 4.25x2.12 bg	3.76x1.76,2.50x4.25 cg 2.50x4.12,2.50x3.76 cg 5x8 p 7.50x4,1x1.50 mp	-	-
1992	1.63x2.63,1.63x2.88 p 1.50x2.63 p 1.76x2.63 cg	1.76x6.25,1.76x5.50 cg	1.76x3.88,1.76x3.63 cg 1.76x4,1.76x4.25 cg 1.76x4.25 sg	1.76x6,1.76x6.76 cg 1.76x6.63,1.76x5.12 cg	-	-

Key: shading indicates net loss

Continued

Table I-1. Yearly Sizes of Figures in Alcoa's Annual Reports, 1985-1994 (excluding photographs)
Continued

	Financial Highlights	Letter to Stockholders	Narrative/Scope of Operations	Managements' Discussion and Analysis	Board of Directors	Supplemental Data
1993	3x4.12 lg	-	3.88x5.76,4.50x6.76 dr 7.38x6,5x4.50 dr 6x3.50 dr	2x3.76,2x3.76 lg 2x3.88,2x3.88 cg 4.25x4.25 p 4.50x4.50,4.50x4.50 cg 1.12x1.12 dr	-	-
1994	2.50x3.50 p	1.12x3.94 cg	-	2.56x3.56 cg	-	-

Key: shading indicates net loss

Note: cg= column graph, bg= bar graph, dr= drawing, lg=line graph, sg= surface graph, mp=map, p=pie graph, ch=chart, pc=pictogram, hs= histogram

Table I-2. Yearly Sizes of Figures in DuPont's Annual Reports, 1985-1994 (excluding photographs)

	Financial Highlights	Letter to Stockholders	Narrative/Scope of Operations	Managements' Discussion and Analysis	Board of Directors	Supplemental Data
1985	1x1.63 cg	-	1x1.50,1x1.76 cg	3.50x2.63 cg	-	-
1986	-	-	1.12x1.63,1.12x1.50 cg 1.12x1.63 cg	3.50x2.63,3.50x2.63 cg 3.50x2.63 cg	-	-
1987	-	-	1x1.38,1x1.50 cg 1.1.63,1x1.76 cg	2.38x3,2.38x3 cg 2.38x3.38,2.38x3 cg 2.38x2.63 cg 5.50x2.38 p	-	-
1988	-	-	1.12x1.50,1.12x1.63 cg 1.12x1.76,1.12x2.12 cg 2.12x3.25 p	2x2.63,2x3.25 cg 2.25x3.76 cg 2x3 p	-	-
1989	2x3.25 p	-	2x2.50,2.2.50 cg	1.50x2.63,1.25x3.25 cg 1.50x4 cg 2x3.25 p	-	-
1990	7.12x1.25 bg	-	4.88x63,5x.63 bg 3.25x2.25 dr 5.76x2,5.76x1.63 lg 5.76x2.38 lg	1.50x3.76,1.63x4 cg	-	-

Key: shading indicates net loss

Continued

Table I-2. Yearly Sizes of Figures in DuPont's Annual Reports, 1985-1994 (excluding photographs)
Continued

	Financial Highlights	Letter to Stockholders	Narrative/Scope of Operations	Managements' Discussion and Analysis	Board of Directors	Supplemental Data
1991	-	-	2.88x3.2x3 cg 1.38x3.38 cg 2.50x1.76 sg 5x.63 bg	1.25x3.38,3.25x3.50 cg 1.63x3.50,1.63x3.63 cg	-	-
1992	4x3.25 sg	-	2x2.38,2.25x1.76 dr	3x3.25,2.76x3.38 cg 1.38x3.38,1.50x3 cg	-	-
1993	-	-	1.25x3 cg	1.12x3.63,3x3.63 cg 1.50x3.63 cg	-	-
1994	-	3.50x2.12 lg	1.76x2.50 cg	-	-	-

Note: cg= column graph, bg= bar graph, dr= drawing, sg= surface graph, mp=map, p=pie graph, ch=chart, pc=pictogram, hs= histogram

Key: shading indicates net loss

Table I-3. Yearly Sizes of Figures in Exxon's Annual Reports, 1985-1994 (excluding photographs)

	Financial Highlights	Letter to Stockholders	Narrative/Scope of Operations	Managements' Discussion and Analysis	Board of Directors	Supplemental Data
1985	-	-	1.76x3.63 cg	2.50x2.63,3.76x2.25 cg 2.50x2.76,2.50x2.63 cg	-	-
1986	-	-	1.76x2.63,1.76x2.25 cg 1.76x2.50 cg	3.76x2.88 bg 2.50x2.63,2.50.63 cg 2.50x2.63 cg	-	2.50x2.88 cg 2.50x2.76 cg
1987	-	-	1.76x2.38,1.76x3.12 cg 1.76x3.25,1.76x2.76 cg	3.76x2.12,2.50x2.63 cg 2.25x2.50 cg	-	2.50x2.38 cg 2.50x2.76 cg
1988	4.50x3.50 cg	-	1.76x2.50,1.76x2.76 cg 1.76x3,1.76x2.63 1.76x3.25 cg	2.50x2.63,2.50x2.63 cg	-	2.50x2.88 cg 2.50x2.63 cg
1989	-	-	4x2.12,4.12x2.12 cg 3.38x2.12,3.50x2.12 cg 4.12x2.12,3.12x2.12 cg 3.25x2.12 cg	2.50x2.63,2.50x2.63 cg	-	2.50x2.88 cg 2.50x2.76 cg
1990	-	-	-	3.63x3,2.25x2.25 cg 3.63x3,2.25x2.25 cg 2.25x2.25 cg	-	2.25x2.25 cg 2.25x2.25 cg

Key: shading indicates net loss

Continued

Table I-3. Yearly Sizes of Figures in Exxon's Annual Reports, 1985-1994 (excluding photographs)
Continued

	Financial Highlights	Letter to Stockholders	Narrative/Scope of Operations	Managements' Discussion and Analysis	Board of Directors	Supplemental Data
1991	1.38x1.25 cg 1.38x2.25 cg 1.38x2.25 cg	-	-	2.25x2.25,2.25x2.25 cg 2.25x2.25 cg	-	-
1992	1.38x1.63 cg 1.38x2.25 cg 1.38x4.25 cg	-	-	2.38x2.25,2.38x2.25 cg 2.38x2.25 cg	-	-
1993	1.38x2 cg 1.38x2.50 cg 1.38x2.50 cg	-	1.25x3.12 cg 1.25x2.76 cg	2.38x2.25,2.38x2.25 cg 2.38x2.25 cg	-	-
1994	1.63x3.38 cg 1.63x2.50 cg 1.63x2.38 cg 1.63x3.25 cg	-	1.88x2.76,2.12x2.88 cg 2x3.12,2x2.76 cg 2x3,2x276,2x3 cg 1.88x3.12 p 2x4.38 cg	2.38x3,2.38x3 cg 2.38x3 cg	-	-

Note: cg= column graph, bg= bar graph, dr= drawing, sg= surface graph, mp=map, p=pie graph, ch=chart, pc=pictogram, hs= histogram

Key: shading indicates net loss

Table I-4. Yearly Sizes of Figures in General Electric's Annual Reports, 1985-1994 (excluding photographs)

	Financial Highlights	Letter to Stockholders	Narrative/Scope of Operations	Managements' Discussion and Analysis	Board of Directors	Supplemental Data
1985	-	-	-	3.76x2.25,3.76x2.25 cg 3.76x2.25,3.76x2.25 cg 3.76x2.25,3.76x2.25 cg 3.76x2.25,3.76x2.12 cg	-	-
1986	-	-	-	3.76x2.25,3.76x2.38 cg	-	-
1987	-	-	-	3.76x2.12,3.76x2.25 cg 3.76x2.25,3.76x2.63 cg 3.76x2.38,3.76x2.25 cg	-	-
1988	-	-	-	(9) 3.50x2.25 cg	-	-
1989	1.50x2 cg 1.50x2.12 cg 1.50x2.50 cg	-	-	3.63x2.38, 3.63x2.38 cg 3.63x2.38 cg	-	-
1990	-	-	-	3.76x2.25,3.76x2.38 cg 3.76x2.50 cg	-	-
1991	(3) 3.63x2.50 cg	-	-	(9) 3.76x2.50 cg	-	-

Key: shading indicates net loss

Continued

Table I-4. Yearly Sizes of Figures in General Electric's Annual Reports, 1985-1994 (excluding photographs)
Continued

	Financial Highlights	Letter to Stockholders	Narrative/Scope of Operations	Managements' Discussion and Analysis	Board of Directors	Supplemental Data
1992	(3) 3.63x2.25 cg	-	-	(9) 3.76x2.50 cg	-	-
1993	-	-	-	(9) 3.76x2.50 cg	-	-
1994	-	-	-	3.76x2.50,3.76x2.50 cg 3.76x2.50 cg	-	-

Note: cg= column graph, bg= bar graph, dr= drawing, sg= surface graph, mp=map, p=pie graph, ch=chart, pc=pictogram, hs= histogram

Key: shading indicates net loss

Table I-5. Yearly Sizes of Figures in General Motors' Annual Reports, 1985-1994 (excluding photographs)

	Financial Highlights	Letter to Stockholders	Narrative/Scope of Operations	Managements' Discussion and Analysis	Board of Directors	Supplemental Data
1985	2.25x3.88 p	-	-	-	-	-
1986	2x3.76 p	-	-	-	-	-
1987	-	-	-	2.25x3.38, 2.25x4.12 cg 2.25x3.76 cg	-	-
1988	-	-	3.63x3.50, 5x4.76 pc 2.25x1.50 pc	-	-	-
1989	-	-	1.76x3.50 sg 1.88x3.88 pc 1.76x4, 1.76x3.63 cg 1.76x3.76 cg	-	-	-
1990	-	-	-	-	-	-
1991	-	-	7.63x2.38, 2.25x4.75 dr 5.88x2.88, 6.38x5.5 dr 1.25x4.75, 6.38x5.88 dr 7.88x2.25 dr	-	-	-

Key: shading indicates net loss

Continued

Table I-5. Yearly Sizes of Figures in General Motors' Annual Reports, 1985-1994 (excluding photographs)
Continued

	Financial Highlights	Letter to Stockholders	Narrative/Scope of Operations	Managements' Discussion and Analysis	Board of Directors	Supplemental Data
1992	-	2.25x2.38 dr 4.88x0.5 ch	1.76x3.63 dr 1.76x3.63 cg 1.76x3.76,2x4.12 ch 2x4,2.25x3.50 cg 1x1.38 (7) dr 1.76x2.76,2.25x3.5 cg 2x4 cg 1.76x3.76,1.76x3.63 ch	-	-	-
1993	-	-	.50x.50 logo (8)	2.25x1.76,2.38x1.63 cg 2.25x2.12 line graph	-	-
1994	2.25x1.25 cg	-	4.25x2.25 dr	2.12x1.88, 2.12x1.38 cg 2.25x2.50 line graph 2.12x1.63 cg	-	-

Note: cg= column graph, bg= bar graph, dr= drawing, sg= surface graph, mp=map, p=pie graph, ch=chart, pc=pictogram, hs= histogram

Key: shading indicates net loss

Table I-6. Yearly Sizes Figures in IBM's Annual Reports, 1985-1994 (excluding photographs)

	Financial Highlights	Letter to Stockholders	Narrative/Scope of Operations	Managements' Discussion and Analysis	Board of Directors	Supplemental Data
1985	2.25x2.76 cg 2.25x2.88 cg	-	-	2.76x3.63,3x3.88 cg 2.76x4 cg 4x3.63,5.38x3 p 1.50x2.63 lg	-	-
1986	2.76x2.76 cg 2.50x3 cg	-	-	4x3.63,5.63x3 p 3.25x3.38,2.76x4.12 cg 2.76x3.50 cg	-	-
1987	2.25x3 cg 2.50x3.12 cg	-	-	3.88x3.25,3.88x2.76 p 3.25x3.25,2.63x4 cg 2.76x3.38 cg	-	-
1988	2.12x2.88 cg 2.12x3 cg	-	7.63x10.76 mp	8x3.50,2.76x4.25 cg 2.50x3.50 cg 3.63x3.76 p	-	-
1989	-	-	-	3.50x2.25,2.76x3.50 cg 2.76x4.25 cg 4x4 p	-	-

Key: shading indicates net loss

Continued

Table I-6. Yearly Sizes Figures in IBM's Annual Reports, 1985-1994 (excluding photographs)
Continued

	Financial Highlights	Letter to Stockholders	Narrative/Scope of Operations	Managements' Discussion and Analysis	Board of Directors	Supplemental Data
1990	1.38x3.25 cg 1.38x3.25 cg	-	.12x1.50,3.50x2.25 dr 1.76x1.76,1.50x1.76 dr 1x2.12,1.63x2.63 dr 2.50x1.76,2x2 dr 1.50x1.50,1.38x1.25 dr 1.76x1.76 dr	1.63x4.25,1.63x4 cg 1.63x3.63,1.63x4 cg	-	-
1991	1.12xx2.50 cg 1.76x3.25 cg 1.12x3.25 cg	-	-	1.25x5.63,1.12x5.76 cg 1x3.63, 1.38x3.76 cg	-	-
1992	1.25x2.38 cg 1.25x3.50 cg 1.88x3.50 cg	-	3.88x3.88,3x3.5 mp	1x3.63,1.25x5.76 cg 1.38x4.25 cg	-	-
1993	-	-	1.63x2.63,6.50x5.12 dr 4.50x2.50,2.76x2.50 dr	-	-	-
1994	-	1x3.76 cg	-	-	-	-

Note: cg= column graph, bg= bar graph, dr= drawing, sg= surface graph, mp=map, p=pie graph, ch=chart, pc=pictogram, hs= histogram

Key: shading indicates net loss

**Table I-7. Yearly Sizes of Figures in International Paper's Annual Reports, 1985-1994
(excluding photographs)**

	Financial Highlights	Letter to Stockholders	Narrative/Scope of Operations	Managements' Discussion and Analysis	Board of Directors	Supplemental Data
1985	2.50x3 cg 2.50x3,2.50x2.50 lg	-	4.88x2.38 cg	3.50x3,3.50x2.63 cg	-	-
1986	-	-	1.63x2.25 p	3.76x3.25,3.76x2.76 cg	-	-
1987	-	-	7.50x4.50 mp 3.50x1.50 p 4.25x3.12,3.76x2.50 dr 3.76x3.25 cg			
1988	-	-	5.63x11 dr	2.38x2.38,2.38x2.12 cg 2.38x2.25,2.38x2 cg 2.38x1.88 cg	-	-
1989	7.50x2.12 bg	-	4.76x3.25c3.25x2.25 mp 1.50x2.50 p	3x2.38, 3x1.63 bg	-	-
1990	1.88x4.25 cg 1.88x5 dcg	8.76x8.50 mp 1.88x1.76 cg 1.88x1.76 p 1.88x1.76 cg	-	1.50x1.76 p 1.38x3.12,1.38x3.50 cg	-	-

Key: shading indicates net loss

Continued

**Table I-7. Yearly Sizes of Figures in International Paper's Annual Reports, 1985-1994
(excluding photographs) Continued**

	Financial Highlights	Letter to Stockholders	Narrative/Scope of Operations	Managements' Discussion and	Board of Directors	Supplemental Data
1991	1.76x3.76 cg	-	2.25x1.76 p	1.76x4.76 cg	-	-
1992	1.88x3.25 cg	-	2.38x1.25 p	3x1.88,3x2.76 cg	-	-
1993			1.63x2.50 cg 1.63x2.63,1.63x2.76 dcg 1x2.25 p	3.38x2.25 cg 3.38x3.38 dcg	-	-
1994	1.25x2.25 cg 1.25x3 dcg	-	-	.76x1.50 cg .76x1.50 dcg .76x1.76,.76x1.50 dcg 1.50x1.76 dr 2x2 mp	-	-

Note: cg= column graph, bg= bar graph, dr= drawing, sg= surface graph, mp=map, p=pie graph, ch=chart, pc=pictogram, hs= histogram
dcg= divided column graph

Key: shading indicates net loss

Table I-8. Yearly Sizes of Figures in Eastman Kodak's Annual Reports, 1985-1994 (excluding photographs)

	Financial Highlights	Letter to Stockholders	Narrative/Scope of Operations	Managements' Discussion and Analysis	Board of Directors	Supplemental Data
1985	-	-	2.25x2.88, 2.25x2.34 cg	2.25x3.25, 2.25x3.12 cg 2.25x3, 2.25x2.88 cg 2.25x2.34 cg	-	-
1986	-	-	-	3.25x1.76, 3.25x1.76 bg	-	-
1987	-	-	-	2.34x4, 2.34x3 cg 2.88x2.63, 2.50x2.63 cg	-	-
1988	-	-	-	2.25x4, 2.25x3.63 cg 2.50x3.63 cg	-	-
1989	-	-	3.25x3.25 dr	2x5.12, 2.50x3.12 cg 2.25x3, 2.25x5.25 cg 2.25x3.63 cg	-	-
1990	-	-	-	2.25x4.88, 2.25x3.25 cg 2.25x5, 2.25x4 cg	-	-
1991	-	-	2.25x3.25, 2.25x3 bg 2.25x1.76 bg	-	-	-

Key: shading indicates net loss

Continued

Table I-8. Yearly Sizes of Figures in Eastman Kodak's Annual Reports, 1985-1994 (excluding photographs)
Continued

	Financial Highlights	Letter to Stockholders	Narrative/Scope of Operations	Managements' Discussion and Analysis	Board of Directors	Supplemental Data
1992	-	-	-	1.25x6, 1.25x2.50 cg 1.25x2.38, 1.25x4.88 cg	-	-
1993	-	-	2.50x2.50, 3.38x2.38 sg 8.12x4.38, 8.50x4.76 mp	-	-	-
1994	-	-	1.50x1.76 p 1.25x3.50, 1.50x3.25 cg 1.25x1.63 cg	-	-	-

Note: cg= column graph, bg= bar graph, dr= drawing, sg= surface graph, mp=map, p=pie graph, ch=chart, pc=pictogram, hs= histogram

Key: shading indicates net loss

Table I-9. Yearly Sizes of Figures in Philip Morris' Annual Reports, 1985-1994 (excluding photographs)

	Financial Highlights	Letter to Stockholders	Narrative/Scope of Operations	Managements' Discussion and Analysis	Board of Directors	Supplemental Data
1985	-	-	-	-	-	-
1986	-	1.88x3.25 cg	1.88x3.25 cg 1.88x3.25 cg	1.88x3.25 cg	-	-
1987	-	2x3.63 cg	2x3.63 cg	1.25x3.63 cg	-	-
1988	-	1.63x3.25 cg 1.63x2.88 cg 1.63x2.50 cg	1.76x2.76 sg 2x3.38 cg	1.63x3.12 cg 1.63x3.12 cg 1.76x3.12 cg	-	-
1989	-	1.76x2.76 cg 1.76x3 cg 1.76x3,1.76x3.38 cg	2.2.25 p 1.88x3.38,1.88x3.50 cg 1.76x3,1.76x2.76 sg 1.63x2.88 cg	1.63x3.38,1.63x3.38 cg 1.88x3.38 cg	-	-
1990	-	1.25x2.63 cg 1.25x2.76 cg 1.76x3.50 cg 1.76x3.63 cg 1.76x3 cg	1.25x2,2.12x2 p 1.38x2.94 sg 1.25x3.88 cg 1.50x3.50 lcg	1.50x3.25 lcg 1.50x3,1.50x3.25 dcg	-	-
1991	7x.5 bg	-	1.38x3.88 sg 1.50x3.50 lcg	1.38x3.25 cg 1.50x3.25 dcg	-	-

Key: shading indicates net loss

Continued

Table I-9. Yearly Sizes of Figures in Philip Morris' Annual Reports, 1985-1994 (excluding photographs)
Continued

	Financial Highlights	Letter to Stockholders	Narrative/Scope of Operations	Managements' Discussion and Analysis	Board of Directors	Supplemental Data
1992	7.25x1.76 bg	-	1.50x1.50,2x2.25 p 3.76x1.88 p 1.88x2.88 sg 1.63x2.50,2.50x3 dcg 1.76x2.63 dcg 2x3 cg 2.25x3.12 lcg	-	-	-
1993	4.38x.50 bg	1.63x3.38 sg 1.63x3.38 cg	-	-	-	-
1994	3x3.88 cg 2.38x1.88 p	2.25x2.88 p 3.50x3 cg	2.38x2.25 2.25x1.88,2.25x2.50 p 2.25x2.63,1.76x2.63 cg 2.38x2.50 cg 2.38x2.25 bg 2.25x3.50,2.50x2.50 cg	-	-	-

Note: cg= column graph, bg= bar graph, dr= drawing, sg= surface graph, mp=map, p=pic graph, ch=chart, pc=pictogram, hs= histogram

Key: shading indicates net loss

Table I-10. Yearly Sizes of Figures in Tenneco's Annual Reports, 1985-1994 (excluding photographs)

	Financial Highlights	Letter to Stockholders	Narrative/Scope of Operations	Managements' Discussion and Analysis	Board of Directors	Supplemental Data
1985	-	2.25x1.76 p	4.50x3.25 mp 2.25x4.38 cg	-	-	-
1986	-	-	-	2.76x4.50 cg	-	-
1987	-	-	2.50x4.25 cg	-	-	-
1988	-	-	2.76x3.76,2.76x4 cg	-	-	-
1989	3.50x4.76 cg	-	3.38x4.12,3.25x4.12 cg 3.12x4.12 cg	-	-	-
1990	2.12x5 cg 2.12x4.25 cg 2.12x5 cg	-	-	-	-	-
1991	1.25x5 p	-	-	-	-	-
1992	-	2.63x2.25 cg 2.63x2.25 cg 2.63x2.25 lg	2.50x2 cg (5) 2.50x2 cg 4x5 dr	-	-	-

Continued

Table I-10. Yearly Sizes of Figures in Tenneco's Annual Reports, 1985-1994 (excluding photographs)
Continued

	Financial Highlights	Letter to Stockholders	Narrative/Scope of Operations	Managements' Discussion and Analysis	Board of Directors	Supplemental Data
1993	1x1 p (6)	-	1.76x3 cg 1.76x3.12 cg 4.88x3.88 mp 2x2.76 pc 2.76x2.88 pc	-	-	-
1994	1x1 p (10) 1.25x3.50 cg 1.25x4.50 cg 1.25x4.12 cg 1.25x4.63 cg	-	2x3 cg 2fp dr (3) 2.25x.5 dr (5) 7x2 dr (5) 2.50x1.76 dr (2) 5x3.76 dr fp dr (2) 2x2.63 dr 2fp mp	-	-	-

Note: cg= column graph, bg= bar graph, dr= drawing, sg= surface graph, mp=map, p=pie graph, ch=chart, pc=pictogram, hs= histogram

**APPENDIX J: TABLES 1-10. SUBJECTS OF ANNUAL REPORT TABLES
BY COMPANY, YEAR, AND ANNUAL REPORT SECTION**

Table J-1. Yearly Subjects of Tables in Alcoa's Annual Reports, 1985-1994

Year	Report Section	Title(s) of Table(s)
1985	Financial Highlights MD&A	Selected 6 Year Financial Data Operating Results, U.S. and Foreign Taxes, After Tax Earnings, Foreign Currency Gains, Quarterly Stock Information, Other Data
1986	Financial Highlights MD&A	Selected 6 Year Financial Data Results of Operations, Alcoa's Taxes, After Tax Earnings, Foreign Currency Exchange Gains and Losses, Quarterly Stock Information, Common Share Data
1987	Financial Highlights MD&A	Selected 5 Year Financial Data Results of Operations, Revenues by Segment, Operating Profit by Segment, Revenues by Operating Group, Foreign Currency Losses, Income and Operating Taxes, Quarterly Stock Information, Common Share Data
1988	Financial Highlights MD&A	Selected 6 Year Financial Data Revenues & Shipping from Aluminum Processing Segments, After Tax Translation Gain (Losses) on Net Income, Total Income and Operating Taxes, Quarterly Stock Information, Common Share Data
1989	Financial Highlights MD&A	Selected 6 Year Financial Data Aluminum Processing Segments' Revenues, After Tax Effect of Translation and Exchange Gains (Losses) in Alcoa's Net Income, Total Income and Operating Taxes, Quarterly Stock Information, Common Share Data
1990	Financial Highlights MD&A	Selected 6 Year Financial Data Revenues of Aluminum Processing Segment, After Tax Translation and Gains and Losses, Total Income and Operating Taxes, Operations Review
1991	Financial Highlights MD&A	Financial Review (5 Year) Aluminum and Chemicals Segment Review, Aluminum Processing Segment Review and Shipments, Non-aluminum Products Segment, Nine Year Summary of Financial and Other Data, Worldwide Operating Locations, Quarterly Stock Information, Common Share Data

Key: shading indicates net loss

Continued

Table J-1. Yearly Subjects of Tables in Alcoa's Annual Reports, 1985-1994
Continued

Year	Report Section	Title(s) of Table(s)
1992	Financial Highlights MD&A	Selected Financial Data Overview of the Year's Results, Aluminum's Chemical Segment Revenues, Aluminum Processing Segment Revenues and Shipments, Non-aluminum Products Segment, Lost Work Day Rate Per 200,000 Work Hours, Alcoa's Business Units and the Markets They Serve, Business Units Servings the Various Markets, Design Criteria for Development of New Aerospace Alloys, 10 Year Summary of Financial and Other Data, Worldwide Operating Locations, quarterly Stock Information, Common Share Data
1993	Financial Highlights MD&A	Financial/Operating Highlights Summary of Earnings, Aluminum and Chemicals Segment, Aluminum Processing Segment, Five-Year Selected Financial Data, Non Aluminum Products Segment, Cost of Goods Sold
1994	Financial Highlights MD&A	Five Year Selected Financial Data Net Income, Alumina and Chemicals Segment Revenue and Operating Profit, Aluminum Processing Segment Revenue and Operating Profits (Loss), Shipments and Revenues by Product Classes, Revenue and Operating Profit from Non-aluminum Products Segment, 11 Year Summary of Financial and Other Data, Alcoa Worldwide Operations, Quarterly Stock Information, Common Share Data

Key: shading indicates net loss

Table J-2. Yearly Subjects of Tables in DuPont's Annual Reports, 1985-1994

Year	Report Section	Title(s) of Table(s)
1985	Financial Highlights MD&A Supplemental Information	Industry Segments, Corporate Highlights Summary of Results, Industry Segments Selected Financial Data Adjusted for Effects of Changing Prices, Quarterly Financial Data, Consolidated Geographical Data, Estimated Proved Reserves of Oil and Gas, Capitalized Costs Relating to Oil and Gas Producing Activities, Costs Incurred in Oil and Gas Producing Activities, Results of Operations for Oil and Gas Producing Activities, Standard Measure for Discounted Future Net Cash Flows and Changes Therein Relating to Proved Oil and Gas Reserves, Coal Activities, Five-Year Financial Review
1986	Financial Highlights MD&A Supplemental Information	Industry Segments, Corporate Highlights Summary of Results, Industry Segments Estimated Proved Reserves of Gas and Oil, Capitalized Costs Relating to Oil and Gas Producing Activities, Standardized Measure of Discounted Future Net Cash Flows Changes Therein Relating To Proved Oil and Gas Reserves, Coal Reserves, Quarterly Financial Data, Consolidated Geographical Data, Five-Year Review
1987	Financial Highlights MD&A Supplemental Information	Industry Segments, Corporate Highlights Summary of Results, Industry Segments Estimated Proved Reserves of Oil and Gas, Capitalized Costs Relating to Oil and Gas Producing Activities, Costs Incurred in Oil and Gas Producing Activities, Results of Operations for Oil and Gas Producing Activities, Standardized Measure of Discounted Future Net Cash Flows and Changes Therein Related to Proved Oil and Gas Reserves, Coal Reserves, Quarterly Financial Data, Consolidated Geographic Data, Five-Year Review
1988	Financial Highlights MD&A Supplemental Information	Industry Segments, Corporate Highlights Summary of Results, Industry Segments Estimated Proved Reserves of Oil and Gas, Capitalized Costs Relating to Oil and Gas Producing Activities, Costs Incurred in Oil and Gas Producing Activities, Results of Operations for Oil and Gas Producing Activities, Standardized Measure of Discounted Future Net Cash Flows and Changes Therein Related to Proved Oil and Gas Reserves, Coal Reserves, Quarterly Financial Data, Consolidated Geographic Data, Five-Year Review

Key: shading indicates net loss

Continued

Table J-2. Yearly Subjects of Tables in DuPont's Annual Reports, 1985-1994

Continued		
Year	Report Section	Title(s) of Table(s)
1989	Financial Highlights MD&A Supplemental Information	Industry Segments, Corporate Highlights Summary of Results, Industry Segments Estimated Proved Reserves of Oil and Gas, Capitalized Costs Relating to Oil and Gas Producing Activities, Costs Incurred in Oil and Gas Producing Activities, Results of Operations for Oil and Gas Producing Activities, Standardized Measure of Discounted Future Net Cash Flows and Changes Therein Related to Proved Oil and Gas Reserves, Coal Reserves, Quarterly Financial Data, Consolidated Geographic Data, Five-Year Review
1990	Financial Highlights MD&A Supplemental Information	Corporate Highlights, Industry Segments Taxes, Industry Segment Performance: 1) Chemicals, 2) Fibers, 3) Polymers, 4) Petroleum, 5) Coal, 6) Diversified Businesses, Cash Flows, Capital Expenditures, Working Capital Estimated Proved Reserves of Oil and Gas, Capitalized Costs Relating to Oil and Gas Producing Activities, Costs Incurred in Oil and Gas Producing Activities, Results of Operations for Oil and Gas Producing Activities, Standardized Measure of Discounted Future Net Cash Flows and Changes Therein Related to Proved Oil and Gas Reserves, Coal Reserves, Quarterly Financial Data, Consolidated Geographic Data, Five-Year Review
1991	Financial Highlights MD&A Supplemental Information	Corporate Highlights, Industry Segments Taxes Estimated Proved Reserves of Oil and Gas, Capitalized Costs Relating to Oil and Gas Producing Activities, Costs Incurred in Oil and Gas Producing Activities, Results of Operations for Oil and Gas Producing Activities, Standardized Measure of Discounted Future Net Cash Flows Related to Proved Oil and Gas Reserves, Summary of Changes in Standard Measure of Discounted Future Net Cash Flows Related to Proved Oil and Gas Reserves, Quarterly Data, Consolidated Geographic Data, Five-Year Financial Review
1992	Financial Highlights Narrative MD&A Supplemental Information	Corporate Highlights, Industry Segments Primary Products and Applications for Each Division: Chemicals, Fibers, Polymers, Petroleum, Diversified Taxes, Sales by Division (5) Quarterly Financial Data, Consolidated Geographic Data Five-Year Review

Key: shading indicates net loss

Continued

Table J-2. Yearly Subjects of Tables in DuPont's Annual Reports, 1985-1994

Continued		
Year	Report Section	Title(s) of Table(s)
1993	Financial Highlights MD&A Supplemental Information	Corporate Highlights Taxes Estimated Proved Reserves of Oil and Gas, Capitalized Costs Relating to Oil and Gas Producing Activities, Costs Incurred in Oil and Gas Producing Activities, Results of Operations for Oil and Gas Producing Activities, Standardized Measure of Discounted Future Net Cash Flows Related to Proved Oil and Gas Reserves, Summary of Changes in Standard Measure of Discounted Future Net Cash Flows Related to Proved Oil and Gas Reserves for Fully Consolidated Companies, Quarterly Financial Data, Consolidated Geographic Data, Five-Year Financial Review
1994	Financial Highlights MD&A Supplemental Information	Corporate Highlights Taxes Estimated Proved Reserves of Oil and Gas, Capitalized Costs Relating to Oil and Gas Producing Activities, Costs Incurred in Oil and Gas Producing Activities, Results of Operations for Oil and Gas Producing Activities, Standardized Measure of Discounted Future Net Cash Flows Related to Proved Oil and Gas Reserves, Summary of Changes in Standard Measure of Discounted Future Net Cash Flows Related to Proved Oil and Gas Reserves for Fully Consolidated Companies, Quarterly Financial Data, Consolidated Geographic Data, Five-Year Financial Review

Key: shading indicates net loss

Table J-3. Yearly Subjects of Tables in Exxon's Annual Reports, 1985-1994

Year	Report Section	Title(s) of Table(s)
1985	Financial Highlights Narrative	Financial, Operating Review of the Year, Business Profile (by Segments)-- Exploration and Production, Refining and Marketing, International Marine, Chemicals, Coal, Other
	MD&A Supplemental Information	Financial Review: Financial Summary Earnings for Oil and Gas Exploration and Production Activities, Crude Oil and Natural Gas Liquids Net Proved Developed and Undeveloped Reserves, Natural Gas Net Proved Developed and Undeveloped Reserves, Oil and Gas Capitalized Costs, Costs Incurred in Property Acquisition, Exploration, or Development Activities, Standardized Measure of Discounted Future Net Cash Flows Relating to Proved Oil and Gas Reserves, Change in Standard Measure of Discount or Future Net Cash Flows Relating to Proved Oil and Gas Reserves - Consolidated Activities, Financial Results for 1985, 1985 Adjusted for Changing Prices, 5 Year Summary of Financial Results Adjusted for Changing Prices, Supplementary Data Adjusted for General Inflation, Quarterly Information
1986	Financial Highlights MD&A Supplemental Information	Financial, Operating Financial Review: Financial Summary Oil and Gas Exploration and Production Activities Earnings, Crude Oil and Natural Gas Liquids Net Proved Developed and Undeveloped Reserves, Natural Gas Net Proved Developed and Undeveloped Reserves, Gas and Oil Capitalized Costs, Gas and Oil Cost Incurred in Property Acquisition, Exploration and Development Activities, Standardized Measure of Discounted Future Net Cash Flows Related to Proved Oil and Gas Reserves, Change in Standard Measure of Discounted Future Net Cash Flows Related to Proved Oil and Gas Reserves - Consolidated Affiliates, Quarterly Information, Operation Summary

Key: shading indicates net loss

Continued

Table J-3. Yearly Subjects of Tables in Exxon's Annual Reports, 1985-1994,

Continued		
Year	Report Section	Title(s) of Table(s)
1987	Financial Highlights Narrative	Financial, Operating Functional and Geographic Analysis of Results, Business Profiles by Segments: Exploration and Production, Refining and Marketing, Chemicals, Coal and Minerals
	MD&A Supplemental Information	Financial Review: Financial Summary Earnings - Oil and Gas Exploration and Production Activities, Crude Oil and Natural Gas Liquids Net Proved Developed and Undeveloped Reserves, Natural Gas Net Proved Developed and Undeveloped Reserves, Capitalized Costs, Costs Incurred in Property Acquisition, Exploration, and Development Activities, Standardized Measure of Discounted Future Net Cash Flows Relating to Proved Oil and Gas Reserves, Changes in Standard Measure of Discounted Future Net Cash Flows Relating to Proved Oil and Gas Reserves - Consolidated Affiliates, Quarter Information, Operating Summary
1988	Financial Highlights Narrative	Financial and Operating Functional and Geographic Analysis of Results, Business Profiles by Segments: Exploration and Production, Refining, and Marketing, Chemicals, Coal/Minerals/Hong Kong Power
	MD&A Supplemental Information	Financial Review, Financial Summary Oil and Gas Exploration and Production Activity Earnings, Crude Oil and Natural Gas Liquids, Natural Gas, Capitalized Costs, Costs Incurred in Property Acquisition, Exploration, and Development Activities, Standard Measure of Discounted Future Net Cash Flows Related to Proved Oil and Gas Reserves, Changes in Standard Measure of Discounted Future Net Cash Flows Relating to Proved Oil and Gas Reserves - Consolidated Affiliates, Quarter Information, Operating Summary
1989	Financial Highlights Narrative	Financial and Operating Hilites Review of the Year - Business Profiles by Segment: Exploration and Production, Refining and Marketing, Chemicals, Coal/Minerals, Hong Kong Power
	MD&A	Financial Summary

Key: shading indicates net loss

Continued

Table J-3. Yearly Subjects of Tables in Exxon's Annual Reports, 1985-1994,

Continued

Year	Report Section	Title(s) of Table(s)
1989	Supplemental Information	Oil and Gas Earnings, Oil and Gas Capitalized Costs, Costs Incurred in Property Acquisition, Exploration, and Development Activities, Crude Oil and Natural Gas Liquids, Natural Gas, Capitalized Costs, Costs Incurred in Property Acquisition, Exploration, and Development Activities, Standard Measure of Discounted Future Net Cash Flows Related to Proved Oil and Gas Reserves, Changes in Standard Measure of Discounted Future Net Cash Flows Relating to Proved Oil and Gas Reserves - Consolidated Affiliates, Quarterly Information, Operating Summary
1990	Financial Highlights MD&A	Financial, Operating Business Profile: Financial, Business Profile - Operating Financial Summary
	Supplemental Information	Capitalized Costs of Oil and Gas Exploration and Production Activities, Oil and Gas Earnings, Crude Oil and Natural Gas Liquids, Natural Gas, Standard Measure of Discounted Future Net Cash Flows Related to Proved Oil and Gas Reserves, Changes in Standard Measure of Discounted Future Net Cash Flows Relating to Proved Oil and Gas Reserves - Consolidated Affiliates, Quarterly Information, Operating Summary
1991	Financial Highlights MD&A	Financial, Operating Financial, Operating, Financial Summary
	Supplemental Information	Quarterly Information, Results of Operations - Oil and Gas, Average Salesprice and Production Costs per Unit of Production, Capitalized Costs (Oil and Gas), Costs Incurred in Property Acquisitions, Explorations and Development Activities, Crude Oil and Natural Gas Liquids, Natural Gas, Standard Measure of Discounted Future Cash Flows, Changes in Standard Measure of Discounted Future Net Cash Flows Relating to Proved Oil and Gas Reserves, Operating Summary
1992	Financial Highlights MD&A	Financial, Operating Business Profiles: Financial, Operating, Financial Summary

Key: shading indicates net loss

Continued

Table J-3. Yearly Subjects of Tables In Exxon's Annual Reports, 1985-1994,

Continued		
Year	Report Section	Title(s) of Table(s)
1992	Supplemental Information	Quarterly Information, Results of Operations - Oil and Gas, Average Sales Prices and Production Costs per Unit of Production, Capitalized Costs, Costs Incurred in Property Acquisition, Exploration, and Development Activities, Crude Oil and Natural Gas Liquids, Natural Gas, Standard Measure of Discounted Cash Flows, Changes in Standard Measure of Discounted Future Net Cash Flows Relating to Proved Oil and Gas Reserves, Operating Summary
1993	Financial Highlights MD&A	Financial, Operating Business Profiles: Financial, Operating, Financial Summary
	Supplemental Information	Quarterly Information, Results of Operations - Oil and Gas, Average Sales Prices and Production Costs per Unit of Production, Capitalized Costs, Costs Incurred in Property Acquisition, Exploration, and Development Activities, Crude Oil and Natural Gas Liquids, Natural Gas, Standard Measure of Discounted Cash Flows, Changes in Standard Measure of Discounted Future Net Cash Flows Relating to Proved Oil and Gas Reserves, Operating Summary
1994	Financial Highlights MD&A	Financial, Operating Business Profile: Financial, Operating, Financial Summary
	Supplemental Information	Quarterly Information, Results of Operations - Oil and Gas, Average Sales Prices and Production Costs per Unit of Production, Capitalized Costs, Costs Incurred in Property Acquisition, Exploration, and Development Activities, Crude Oil and Natural Gas Liquids, Natural Gas, Standard Measure of Discounted Cash Flows, Changes in Standard Measure of Discounted Future Net Cash Flows Relating to Proved Oil and Gas Reserves, Operating Summary

Key: shading indicates net loss

**Table J-4. Yearly Subjects of Tables in General Electric's Annual Reports,
1985-1994**

Year	Report Section	Title(s) of Table(s)
1985	Financial Highlights MD&A Supplemental Information	Financial Highlights Statement of Earnings, Statement of Financial Position, Statement of Changes in Financial Position, Selected Financial Data, Total GE Taxes of 1985, Summary of Industry Segments Quarterly Information
1986	Financial Highlights MD&A	Financial Highlights Statement of Earnings, Statement of Financial Position, Statement of Changes in Financial Position, Selected Financial Data, Summary of Industry Segments
1987	Financial Highlights MD&A	Financial Highlights Restated Quarterly After-Tax Earnings Increase (Decrease) Resulting from Accounting Changes and Unusual Expenses, Statement of Earnings, Statement of Financial Position, Statement of Changes in Financial Position, Selected Financial Data, Summary of Industry Segments, Unusual Items Included in Operating Profit, U.S. Exports to Customers
1988	Financial Highlights MD&A	Financial Highlights Summary of Industry Segments, U.S. Export to External Customers, Selected Financial Data
1989	Financial Highlights MD&A	Financial Highlights Summary Data, Summary of Industry Segments, GE's Exports from the U.S. to External Customers, GE Contribution to U.S. Balance of Trade (Est.), Selected Financial Data
1990	Financial Highlights MD&A	Financial Highlights Summary of Industry Segments, GE's Exports from the U.S. to External Customers, Selected Financial Data
1991	Financial Highlights MD&A	Financial Highlights Summary of Industry Segments, GE's Exports from the U.S. to External Customers, Selected Financial Data, Trading and Dividend Information
1992	Financial Highlights MD&A	Financial Highlights Trading and Dividend Information, Selected Financial Data, GE's Exports from U.S. to External Customers, Summary of Industry Segments

Continued

Key: shading indicates net loss

**Table J-4. Yearly Subjects of Tables in General Electric's Annual Reports,
1985-1994 Continued**

Year	Report Section	Title(s) of Table(s)
1993	Financial Highlights MD&A	Financial Highlights Trading and Dividend Information, Selected Financial Data, GE's Exports from U.S. to External Customers, Summary of Industry Segments
1994	Financial Highlights MD&A	Financial Highlights Summary of Industry Segments, GE's Total Exports from the U.S., Selected Financial Data

Key: shading indicates net loss

**Table J-5. Yearly Subjects of Tables in General Motor's Annual Reports,
1985-1994**

Year	Report Section	Title(s) of Table(s)
1985	Financial Highlights Narrative	Highlights All New or Completely Redesigned GM Models Introduced in 1985 (U.S.), Top Selling GM Cars in 1985 (U.S.)
	MD&A	Worldwide Factory Sales, Percentage of Worldwide Dollar Sales and Revenues Attributable to:, Percentage of Net Income (Loss) Attributable to:, Summary Financial Data for EDA, Summary Financial Data for GMHE
	Supplemental Information	Selected Quarterly Data, Selected Data Adjusted for Effects of Changing Prices
1986	Financial Highlights Narrative	Highlights Worldwide Factory Sales, Retail Unit Sales of Cars and Trucks Worldwide, GM Employment, Payrolls, and Benefits
	MD&A	Summary Financial Data -GMHE, Summary Financial Data - EDS
	Supplemental Information	Selected Quarterly Data, Selected Financial Data
1987	Financial Highlights MD&A	Highlights Worldwide Factory Sales, Retail Unit Sales of Cars and Trucks Worldwide, GM Employment, Payrolls, and Benefits, Electronic Data Systems Operations, GM Hughes Electronics Operations
	Supplemental Information	Selected Quarterly Data, Selected Financial Data
1988	Financial Highlights MD&A	Highlights Worldwide Factory Sales, Retail Unit Sales of Cars and Trucks Worldwide, Summary Financial Data - GMAC, Summary Financial Data - EDS, Summary Financial Data - GMHE, GM Operations with GMAC on an Equity Basis, GM Employment, Payrolls, and Benefits
	Supplemental Information	Selected Quarterly Data, Selected Financial Data
1989	Financial Highlights Narrative MD&A	Highlights Major New Acquisitions and New Ventures Worldwide Factory Sales, Retail Unit Sales of Cars and Trucks Worldwide, Summary Financial Data - GMAC, Summary Financial Data - EDS, Summary Financial Data - GMHE, Employment, Payrolls, and Benefits, Statement of Consolidated Income, Consolidated Balance Sheet, Liability and Stockholders' Equity, Statement of Consolidated Cash Flows
	Supplemental Information	Selected Quarterly Data, Selected Financial Data

Continued

Key: shading indicates net loss

Table J-5. Yearly Subjects of Tables in General Motor's Annual Reports, 1985-1994 Continued

Year	Report Section	Title(s) of Table(s)
1990	Financial Highlights MD&A	Financial Summary Employment and Payrolls, Worldwide Factory Sales to Dealers, Retail Unit Sales of Cars and Trucks Worldwide, Summary Financial Data - GMAC, Summary Financial Data - EDS, Summary Financial Data - GMHE, GM Operations with GMAC on an Equity Basis
	Supplemental Information	Selected Quarterly Data, Selected Financial Data
1991	Financial Highlights MD&A	Financial Summary Employment and Payrolls, Worldwide Factory Sales, Retail Unit Sales of Cars and Trucks Worldwide, Summary Financial Data - GMAC, Summary Financial Data - EDS, Summary Financial Data - GMHE, GM Operations with GMAC on an Equity Basis
	Supplemental Information	Selected Quarterly Data(Unaudited), Selected Financial Data
1992	Financial Highlights Narrative MD&A	Financial Summary Nine Cars Compared to Their Competition Worldwide Factory Sales, Vehicle Unit Deliveries of Cars and Trucks Worldwide, Employment and Payrolls, Summary Financial Data - EDS, Summary Financial Data - GMHE, Pretax Loss and Taxable U.S. Income, GM Operations with GMAC on an Equity Basis
	Supplemental Information	Selected Quarterly Data(Unaudited), Selected Financial Data
1993	Financial Highlights MD&A	Highlights NAO Earnings Before Interest and Taxes, Net Income (Loss) by Sector, Net Income Excluding Special Items, Worldwide Wholesale Sales, Vehicle Unit Deliveries of Car and Trucks Worldwide, Employment and Payrolls, Summary Financial Data - EDS, GMHE Business Mix, Summary Financial Data - GMHE, Taxes, Statement of Consolidated Operations with GMAC on an Equity Basis, Consolidated Balance Sheet with GMAC on a Equity Basis, Statement of Consolidated Cash Flows with GMAC on a Equity Basis
	Supplemental Information	Selected Quarterly Data(Unaudited), Selected Financial Data

Key: shading indicates net loss

Continued

**Table J-5. Yearly Subjects of Tables in General Motor's Annual Reports,
1985-1994 Continued**

Year	Report Section	Title(s) of Table(s)
1994	Financial Highlights MD&A	Highlights, GM Corporation at a Glance Worldwide Wholesale Sales, Net Income, Vehicle Unit Deliveries of Cars and Trucks Worldwide, Employment and Payrolls, Summary Financial Data - EDS, Units Financed or Leased by GMAC Worldwide, Summary Financial Data - GMHE, SFAS, Health Care and Pay as You Go Costs 1994, Security Ratings, Reconciliation of Book Income to Taxable Income, Statement of Consolidated Operations with GMAC on an Equity Basis, Consolidated Balance Sheet with GMAC on an Equity Basis, Statement of Consolidated Cash Flow with GMAC on an Equity Basis
	Supplemental Information	Selected Quarterly Data, Selected Financial Data

Key: shading indicates net loss

Table J-6. Yearly Subjects of Tables in IBM's Annual Reports, 1985-1994

Year	Report Section	Title(s) of Table(s)
1985	Financial Highlights MD&A	Financial Highlights Consolidated Statements of Earnings, Consolidated Statements of Financial Position, Consolidated Statements of Funds Flow, Consolidated Statements of Stockholder's Equity
	Supplemental Information	Comparison of Selected Financial Data Adjusted for Change in Specific Prices (Current Cost), Five-Year Comparison of Selected Financial Data, Selected Quarterly Data
1986	Financial Highlights MD&A	Financial Highlights Consolidated Statements of Earnings, Consolidated Statements of Financial Position, Consolidated Statements of Funds Flow, Consolidated Statements of Stockholder's Equity
	Supplemental Information	Five-Year Comparison of Selected Financial Data, Selected Quarterly Data
1987	Financial Highlights MD&A	Financial Highlights Consolidated Statements of Earnings, Consolidated Statements of Financial Position, Consolidated Statements of Funds Flow, Consolidated Statements of Stockholder's Equity
	Supplemental Information	Five-Year Comparison of Selected Financial Data, Selected Quarterly Data
1988	Financial Highlights Supplemental Information	Financial Highlights Five-Year Comparison of Selected Financial Data, Selected Quarterly Data
1989		
1990	Financial Highlights MD&A	Financial Highlights Consolidated Statements of Earnings, Consolidated Statements of Financial Position, Consolidated Statements of Funds Flow, Consolidated Statements of Stockholder's Equity
	Supplemental Information	Five-Year Comparison of Selected Financial Data, Selected Quarterly Data
1991	Financial Highlights	Financial Highlights for Year, Financial Highlights at End of Year
	Supplemental Information	Five-Year Comparison of Selected Financial Data, Selected Quarterly Data
1992	Financial Highlights	Financial Highlights
	Supplemental Information	Five-Year Comparison of Selected Financial Data, Selected Quarterly Data

Continued

Key: shading indicates net loss

Table J-6. Yearly Subjects of Tables in IBM's Annual Reports, 1985-1994,
Continued

Year	Report Section	Title(s) of Table(s)
1993	Financial Highlights MD&A	Financial Highlights Selected Income and Expense Items, Results of Operations, Hardware Sales, Software, Services, Rentals, and Financing, Operating Expenses, Working Capital, Debt and Equity, Cash Flows, Residual Value Maturities for Company's Sales- Type and Operating Leases, Employees
	Supplemental Information	Five-Year Comparison of Selected Financial Data, Selected Quarterly Data
1994	Financial Highlights MD&A	Financial Highlights Results of Operations, Hardware Sales, Software, Services, Rentals and Financing, Operating Expenses, Financial Condition, Debt and Equity, Cash Flow, Sales-Type Leases, Employees

Key: shading indicates net loss

**Table J-7. Yearly Subjects of Tables in International Paper's Annual Reports,
1985-1994**

Year	Report Section	Title(s) of Table(s)
1985	Financial Highlights MD&A	Financial Highlights Sales and Operating Profit by Division for Two Years, Capital Spending for Three Years
1986	Financial Highlights MD&A	Financial Highlights Capital Spending - Three Years
1987	Financial Highlights	Financial Highlights
1988	Financial Highlights MD&A Supplemental Information	Financial Highlights Capital Expenditures by Industry Segment, Operating Results by Industry Segment, Production by Product, Assets by Industry Segment Financial Summary 1988-1984
1989	Financial Highlights MD&A	Financial Highlights Capital Expenditures by Industry Segment; Dividends Paid Per Common Share; Net Sales; Assets; Operating Profit; Production by Products Depreciation, Depletion, and Amortization; Geographic Segment Data
1990	Financial Highlights MD&A Supplemental Information	Financial Highlights International Paper At A Glance, Capital Expenditures by Industry Segment, Dividends Paid Per Common Share, Production by Products, European Acquisitions, Net Sales by Geographic Area, Operating Profit by Geographic Area, Assets by Geographic Area, Net Sales by Industry Segment, Operating Profit by Industry Segment, Assets by Industry Segment; Depreciation, Depletion, and Amortization by Industry Segment, Industry Segment Contributions for 1990 Interim Financial Results, Six-Year Financial Summary
1991	Financial Highlights MD&A	Financial Highlights Net Sales; Operating Profit; Assets; European Sales by Business Segment; by Industry Segment- Net Sales; Assets; Operating Profit; Depreciation, Depletion, and Amortization; Industry Segment Contributions for 1990 and 1991
1992	Financial Highlights MD&A	Financial Highlights, Industry Segment Contributions Net Sales, Assets, and Operating Profit by Geographic Area; European Sales by Business Segment, by Industry Segment-Net Sales; Assets; Operating Profit (Loss); Depreciation, Depletion, and Amortization

Continued

Key: shading indicates net loss

**Table J-7. Yearly Subjects of Tables in International Paper's Annual Reports,
1985-1994 Continued**

Year	Report Section	Title(s) of Table(s)
1993	Financial Highlights MD&A	Financial Highlights Capital Expenditures by Industry Segment, Geographic Net Sales, Geographic Assets, Operating Profit by Industry Segment, Depreciation, Depletion, and Amortization by Industry Segment, Industry Segment Contributions
	Supplemental Information	Eleven-Year Financial Summary, Interim Financial Results
1994	Financial Highlights MD&A	Financial Highlights Capital Expenditures by Industry Segment, Net Sales by Geographic Area, Assets by Geographic Area, Operating Profit by Geographic Area, European Sales by Business Segment, Net Sales by Industry Segment, Assets by Industry Segment, Operating Profit by Industry Segment, Depreciation, Depletion, and Amortization by Industry Segment, Industry Segment Contributions
	Supplemental Information	Eleven-Year Financial Summary, Interim Financial Results

Key: shading indicates net loss

Table J-8. Yearly Subjects of Tables in Kodak's Annual Reports, 1985-1994

Year	Report Section	Title(s) of Table(s)
1985	Financial Highlights MD&A	Summary of the Year in Figures Sales and Earning, Sales by Division, Earnings from Operations, Net Earnings, Dividends Per Share, Capital Additions, Market Price Data
	Supplemental Information	Kodak in Review, Kodak in Review (10 years)
1986	Financial Highlights Narrative MD&A	Summary of the Year in Figures Highlights of 1986 Sales and Earnings for 1986, Sales by Segment, Earnings from Operations by Segment, Net Earnings, Dividends Per Share, Capital Additions by Segment, Market Price Data
	Supplemental Information	Kodak in Review
1987	Financial Highlights MD&A	Summary of the Year in Figures Summary, Sales by Segment, Earnings from Operations by Segment, Net Earnings, Dividends Per Share, Capital Additions by Segment, Market Price Data
	Supplemental Information	Kodak in Review
1988	Financial Highlights MD&A	Summary of the Year Summary, Sales by Segment, Earnings from Operations by Segment, Dividends Per Share, Net Earnings, Capital Additions, Market Price Data
	Supplemental Information	Kodak in Review
1989	Financial Highlights Narrative	Summary of the Year in Figures Segments and Products, Performance Overview of Imaging, Chemicals, Health, Information
	MD&A	Summary, Sales by Segment, Earnings (Loss) from Operations by Segment, Net Earnings, Dividends Per Share, Capital Additions by Segment, Market Price Data
	Supplemental Information	Kodak in Review
1990	Financial Highlights Narrative	Summary of the Year in Figures Imaging Performance Overview, Information Performance Overview, Chemicals Performance Overview, Health Performance Overview
	MD&A	Summary, Sales by Segment, Earnings (Loss) from Operations by Segment, Net Earnings, Dividends Per Share, Capital Additions by Segment, Market Price Data
	Supplemental Information	Kodak in Review

Key: shading indicates net loss

Continued

Table J-8. Yearly Subjects of Tables in Kodak's Annual Reports, 1985-1994

Continued

Year	Report Section	Title(s) of Table(s)
1991	Financial Highlights MD&A	Summary of the Year in Figures Sales, Sales by Segment, Earnings (Loss) from Operations, Net Earnings, Capital Additions by Industry Segment, Market Price Data
	Supplemental Information	Kodak in Review (5 years)
1992	Financial Highlights MD&A	Financial Summary Summary, Sales by Segment, Earnings (Loss) from Operations by Industry Segment, Net Earnings, Capital Additions by Industry Segment, Market Price Data
	Supplemental Information	Summary of Operating Data
1993	Financial Highlights MD&A	Financial Highlights Summary Sales by Segment, Earnings (Loss) from Operations by Industry Segment, Net Earnings (Loss), Capital Additions by Industry Segment, Market Price Data
	Supplemental Information	Summary of Operating Data
1994	Financial Highlights MD&A	Financial Highlights Summary, Sales by Industry Segment, Earnings from Operations by Industry Segment, Capital Additions by Industry Segment, Market Price Data
	Supplemental Information	Summary of Operating Data

Key: shading indicates net loss

Table J-9. Yearly Subjects of Tables in Philip Morris' Annual Reports, 1985-1994

Year	Report Section	Title(s) of Table(s)
1985	Financial Highlights MD&A	Financial Highlights Inflation-Adjusted Information, Historical vs. Current Costs for Five-Year Period, Selected Financial Data - 11-Year Review
1986	Financial Highlights MD&A	Financial Highlights Selected Financial Data - 15-Year Review
1987	Financial Highlights MD&A	Financial Highlights Selected Financial Data - 15-Year Review
1988	Financial Highlights MD&A	Financial Highlights Selected Financial Data - 15-Year Review
1989	Financial Highlights Narrative MD&A	Financial Highlights This is Phillip Morris, Revenues and Income by 10 Divisions: Phillip Morris, USA; Phillip Morris International; General Foods USA; Kraft USA; Kraft General Foods International; Kraft General Foods Canada; Oscar Meyer Foods; Kraft General Foods Frozen Products; Kraft General Foods Commercial Products; Miller Brewing Co. Selected Financial Data - 15-Year Review
1990	Financial Highlights Narrative MD&A	Financial Highlights Operating Revenues and Income by Divisions (10) Selected Financial Data - 15-Year Review
1991	Financial Highlights MD&A	Financial Highlights Total Return to Stockholders
1992	Financial Highlights Narrative MD&A	Financial Highlights Acquisitions and Investments Operating Results, Results by Business Segment (2) Selected Financial Data - 15-Year Review

Key: shading indicates net loss

Continued

Table J-9. Subjects of Tables in Philip Morris' Annual Reports,
1985-1994 Continued

Year	Report Section	Title(s) of Table(s)
1993	Financial Highlights	Financial Highlights, Domestic Tobacco, International Tobacco, North American Food, International Food, Beer, Financial Services, and Real Estate
	Narrative	Markets and Selected Major Brands; Tobacco, Coffee, Cheese, Confectionary; Phillip Morris Brands (Beer) and Market Segment, Tobacco Operating Revenues and Operating Companies' Income, Food Operating Revenue and Operating Companies Income, Beer Operating Revenue and Operating Companies Income, Financial Services and Real Estate Operating Revenue, and Operating Companies Income
	MD&A	Operating Results - Operating Revenues, Operating Results-Operating Income, Net Earnings and Earnings Per Share, Tobacco-Operating Revenue, Operating Profit, Food-Operating Revenue, Operating Profit, Selected Financial Data - 15-Year Review
1994	Financial Highlights	Tobacco, Food, Beer, Financial Highlights, Results by Business Segment
	MD&A	Consolidated Operating Results-Operating Revenues, Consolidated Operating Results-Operating Income, Net Earnings and Earnings Per Share for 1993, Tobacco-Operating Revenues, Tobacco-Operating Profit, Food-Operating Revenue, Food-Operating Profit, Selected Financial Data - 15-Year Review

Key: shading indicates net loss

Table J-10. Yearly Subjects of Tables in Tenneco's Annual Reports, 1985-1994

Year	Report Section	Title(s) of Table(s)
1985	Financial Highlights MD&A	Financial Highlights Record of Progress, Quarterly Per Share Market Price and Dividends, Results by Major Business, Proved Reserves at Year-end, Natural Gas Production and Prices, Crude and Condensate Production and Prices, Tenn. Gas
1986	Financial Highlights Narrative Supplemental Information	Consolidated Results, Results by Major Business Proved Reserves At Year-end, Natural Gas Production and Prices, Crude and Condensate Production and Prices, Tenneco Gas Transmission/Tenneco Gas Co Gas Deliveries, Refinery Crude Oil Runs and Product Sales
1987	Financial Highlights MD&A Supplemental Information	Consolidated Results, Results by Major Business Record of Progress Quarterly Per Share Market Prices and Dividends
1988	Financial Highlights MD&A Supplemental Information	Consolidated Results - Two Years, Results by Major Business - Two Years Business Profiles for Each Production Division: Tenneco Gas Deliveries for 8 years, Record of Progress for 11 Years, Statement of Income for 3 Years, Balance Sheet for 2 Years, Capitalization for 2 Years Quarterly Per Share Market Prices and Dividends by Quarter for 2 Years
1989	Financial Highlights MD&A Supplemental Information	Consolidated Results Statement of Income Record of Progress, Quarterly Per Share Market Prices and Dividends
1990	Financial Highlights Narrative Supplemental Information	Consolidated Results Tenneco At a Glance, Business Profiles by Segment: Natural Gas Pipelines, Farm and Construction Equipment, Automotive Parts, Shipbuilding, Packaging, Chemicals, and Minerals, Tenneco Gas Deliveries Record of Progress, Quarterly Market Prices and Dividends Per Share
1991	Financial Highlights Narrative Supplemental Information	Consolidated, Segment (Cont. Operations) Business Profile of Each of 6 Divisions, Tenneco At a Glance - By Division Record of Progress, Quarterly Market Prices and Dividends Per Share

Continued

Key: shading indicates net loss

Table J-10. Yearly Subjects of Tables in Tenneco's Annual Reports, 1985-1994
Continued

Year	Report Section	Title(s) of Table(s)
1992	Financial Highlights Narrative Supplemental Information	Consolidated, Segment (Cont. Operations) Tenneco At a Glance (by Divisions) Record of Progress, Quarterly Market Prices and Dividends Per Share
1993	Financial Highlights Supplemental Information	Consolidated, Segment (Cont. Operations) Record of Progress, Quarterly Market Prices and Dividends Per Share
1994	Financial Highlights Supplemental Information	Consolidated, Tenneco At a Glance Record of Progress, Quarterly Market Prices and Dividends Per Share

Key: shading indicates net loss

**APPENDIX K: TABLES 1-10. SUBJECTS OF ANNUAL REPORT
PHOTOGRAPHS BY COMPANY, YEAR,
AND ANNUAL REPORT SECTION**

Table K-1. Yearly Subjects of Photographs in Alcoa's Annual Reports, 1985-1994

Year	Report Section	Subject(s) of Photo(s)
1985	Letter Narrative	CEO seated - President Standing - suit, white shirts, and ties Manufacturing and Products, manufacturing international, U.S. operation in Tennessee, employees at work, corporate customer using product
1986	Letter Narrative	2 pictures - COO and CEO standing behind chair, suit, tie, white shirt Employees at work using advanced technologies, products manufacturing - new products, computer technology consumers using products, distributors and products, international use of company product, international facility, new facilities
1987	Letter Narrative	COO and CEP seated at table - shirt and tie only - both, black and white photos Black and white photos throughout - employees and their jobs and comments
1988	Letter Narrative	President and CEO, full page - suits, ties, and white shirts - standing at Technical Center modernized plant with employees, employees at work, international facilities - end-user products and customers, corporate customers - new facilities' product
1989	Letter Narrative	CEP/COO - seated- suit, tie, white shirts - same picture Large in black and white - 2/3 pg. size; small ones 4 FC; large-employees at work, new technologies in plants, corporate customers using products, international plants; small-plants and raw products, end users with products, products in use - uses of products, plant facilities, employees working, recycling, use of technology, international products, safety measures taken by employees
1990	Financial Highlights Letter Narrative	employee at work Execs (2) (FP) standing in windows on top of building looking out - suits, ties, white shirts New aluminum alloys for Boeing, employees at work, environmental testing by employees, new products, manufacturing activities, improvements in processes, international manufacturing, international partners, employees at work in smelting plants, recycling reforestation project in Australia
1991	Letter Narrative	CEO - standing at door, suit, tie, white shirt Raw materials, safety equipment, international scenes products, corporate customers, factories, research and development employee at work, environment, automotive end products, railroad products, auto safety aspects, future possible products

Key: shading indicates net loss

Continued

Table K-1. Yearly Subjects of Photographs in Alcoa's Annual Reports, 1985-1994 Continued

Year	Report Section	Subject(s) of Photo(s)
1992	Letter	CEO - full page - sportcoat, blue shirt, tie, khaki colored slacks - standing outside by pond, mine site rehabilitated by Alcoa of Australia
	Narrative	Employees at work, corporate customers' products, Alcoa's business unit leaders and representative, unit products, raw materials, shipping, smelting factory, ingots, consumers with products - community service/support
1993	Letter	One exec. standing - white shirt, tie, no coat - black and white
	Narrative	Five company division execs - black and white head shots
1994	Letter	CEP - seated at table, white shirt, tie, no coat - looks like he's in a meeting
	Narrative	Products, raw materials, finished end products, employees at work, international meetings, all but one picture of people black and white - colored photo with employees who are in new biological treatments to remediate waste

Key: shading indicates net loss

Table K-2. Yearly Subjects of Photographs in DuPont's Annual Reports, 1985-1994

Year	Report Section	Subject(s) of Photo(s)
1985	Letter	Execs. at new research center, standing, suit, tie, white shirts; 2 other execs at new lab, suits, ties, white shirts
	Narrative	New products, employees at work, consumer using products, new facility, international state of the art control room, high tech automotive products, test farm, emphasis on quality, test wells, international production well in Alaska, international refinery, Conoco station's new design
1986	Letter	3 photos - execs. in action - 1 seated, suit, tie, white shirt, 1 standing, suit, tie, blue shirt
	Narrative	New biomedical equipment, new technology in industry and consumer products, new fire uniforms, customers with products, papermill, sales contract negotiations, market discussions on oil, coal customers
1987	Letter	2 photos - 1 seated, 1 standing - suits, ties, white shirts
	Narrative	Original associate, new product, research and development at work, automotive engineers at work, plant labs, medical technology being used
1988	Letter	1 exec. Chair - seated on desk - suit, tie, blue and white small stripe shirt
	Narrative	Execs for each industrial segment, consumers using products, international consumers, corporate and industrial, medical technology, coal mining facility, aerospace product use, aotomotive products, petroleum and natural gas drilling, refiners, polymer products, corporate activities
1989	Letter	Chairman visiting Del. site, International environmental efforts
	Narrative	International product uses and international customers, DuPont products in hiking and skiing equipment, Conoco outlets and pumps in Denver, coal, coal generated electricity running preemie incubator, new habitat enrichment programs for wildlife
1990	Letter	Chair with Pres. bush accepting award - suit, tie, lt blue shirt
	Narrative	Carpet, synthetic fiber products, no-stick skillet, Conoco station, mini van, washing machine, paint brush and paint, Geneva technology support team, global team for Lycra, Boeing jet, Conoco motor oil, color computer monitor, corn farmer, sample wheel, chair made from resin, recycling team, workers at N. Sea natural gas, bike wheel, golf ball, Ontario generating plant, snow skier, athletic shoe, sailboat, camera, coal operations safety team, Japanese DuPont ag product respresentatives, nylon filter mesh, recycle efforts, xray film, refrigerator, fire fighter protection on firemen, community outreach group
1991	Letter	Chairman with researcher, 2 exec., suits, ties, white shirts

Key: shading indicates net loss

Continued

Table K-2. Yearly Subjects of Photographs in DuPont's Annual Reports, 1985-1994 Continued

Year	Report Section	Subject(s) of Photo(s)
1991	Narrative	Researcher in Japan who created new product, employees, community activities, stock options for employees, new clothing fabric, awards and winners, engineers at work, international business activities, employees at work, new coker unit at refinery, new carpet product, new herbicide, orthopedic devices, recycling efforts, new products
1992	Letter Narrative	1 exec. - Chair - head/shoulders - in shaded light - circle - striped shirt and tie only Uses of products in each division
1993	Letter	international plants, employees, chairman - tie, striped shirt - no coat
1994	Letter	Exec. with employee shareholder, suit, tie, white shirt, 2 other execs in suits, ties, white shirts - black and white photos with exec's shaded or washing in yellow

Key: shading indicates net loss

Table K-3. Yearly Subjects Photographs in Exxon's Annual Reports, 1985-1994

Year	Report Section	Subject(s) of Photo(s)
1985	Financial Highlights	Gas pump hose nozzles
	Letter Narrative	2 execs. suit, tie, lt blue shirt and white with wine pin strip - shoulder and head only Workboat in S China Sea, employees at work, construction cranes and towers of processing units, international drilling projects, refinery, Exxon station, high tech control room, international gas processing plant, ship loader for coal, worker in assay lab, copper commutators, power plant in Hong Kong, community activities
1986	Financial Highlights	New imaging of asphalt and sandstone
	Letter Narrative	2 photos - individual execs. suit, ties, white shirt and lt. blue shirt Innovative drilling platform design, flexible piping, employees at work, high tech equipment being used, research activities, Canadian drilling projects, Exxon ship at service station, high tech comm. in UK, Exxon Valdez, international facilities, chemical products and plants, coal mining, power plant in Hong Kong, public service
1987	Financial Highlights	Sunset on drilling rig with worker
	Letter Narrative	Individual photos (2) suits, ties, white shirt and white with blue pinstripe Wildcat drilling on submersible rig, man-made island for oceanic oil field, pipeline, Canadian production wells, Exxon service station, international computerized system, international facility with high tech computer for manufacturing, coal mine, coal-figured turbines, steel towers, hydrogen distribution system, researchers at chemical engineering lab
1988	Letter	2 individual pictures - execs. suits, ties, white shirt and white shirt with blue pinstripe - shoulders and head
	Narrative	New ventures in deep-gas, offshore production platforms, new production in Canada, new platform in U.K North Sea, Exxon service station and quick lube unit, manufacturing with employee, international use of polymers, new developments in Ethylene import system, copper mine, Hong Kong's new power system, new division in recycling, old auto tires for electric power, community activities
1989	Financial Highlights	Night view of international new production and compression platform
	Letter	4 employees at work, 1 of execs (2)-1 seated in chair - one on edesk - suits, ties, white and lt. blue shirts

Key: shading indicates net loss

Continued

Table K-3. Yearly Subjects of Photographs in Exxon's Annual Reports, 1985-1994 Continued

Year	Report Section	Subject(s) of Photo(s)
1989	Narrative	Photos of Alaskan update, Valdez oil spill, restored mining lands to agriculture, models of production platform, workers on production platform, natural gas discovery, Exxon station, international chemists at work in European lab, international copper mine, reasearchers at work, new oil spill technology, community activities
1990	Financial Highlights Letter Narrative	Gas wells in Oklahoma and workers Exec. photo - 1 seated, 1 sitting on desk, suits, ties, white and lt. blue shirts Drilling rig silhouette at sunset, semi-submersible moored drilling rig, researchers at work, new computer technology, environmental efforts around gas well, international gas station, Singapore refinery, community activities, high tech control center, recycling efforts, new fertilizer, international coal mining, service tug boats for environmental safety, update on Prince William Sound, Alaska
1991	Letter Narrative	1 photo-2 execs, suits, ties, white and lt. blue shirts, standing behind globe Emergency response team during refueling operations, recycling efforts, international emphasis on environment, update on Prince William Sound, safety achievement of employee, sample testing, new platform in Gulf of Mexico, progress on new tension leg platform, operations in Netherlands, international gas uses, service station, new automated payment system at service station, new conversion unit in England, international service stations, safety procedures, international lubricants plant, bunker barge to deliver marine fuels and lubricants, international petrochemical plant, new product in packages, refinery control room, aliphatics fluids plant, expansion of copper mine, Hong Kong generating plants
1992	Letter Narrative	Standing execs - suits, ties, white and lt. blue shirts Emphasis on training, engineering and research in emissions, scientists at work, platform at Malaysian gas field, geophysical and geological staff using high tech computers, natrual gas pipeline, new platform in UK, ship's control room, platform expansion, on-shore oil and gas treating facility, gas pumps with customer, Exxon gas station in E. Germany, in Paris, Main Str. Motors at Euro Disney, chemical manufacturing plant, new polypropylene and polyethelene plant in France, Hong Kong power station, Exxon Computer Services Command Center
1993	Letter Narrative	2 execs. - one sitting, one leaning on board room table - suits, ties, white shirts Platforms in Brentfield, UK, platform offshore Malaysia, on-shore geo-treating facility, new computer technology, new service stations U.S.-International, new credit card, French refinery, Baton Rouge refinery

Key: shading indicates net loss

Continued

Table K-3. Yearly Subjects of Photographs in Exxon's Annual Reports, 1985-1994 Continued

Year	Report Section	Subject(s) of Photo(s)
1994	Letter Narrative	1 photo - 2 execs. 1 sitting, 1 leaning on table, suits, ties white shirts Drilling in dessert, natural gas treatment plant, Russian drilling platform offshore Malaysia, oil sands in Canada, Exxon service station, Thailand refinery

Key: shading indicates net loss

Table K-4. Yearly Subjects of Photographs in General Electric's Annual Reports, 1985-1994

Year	Report Section	Subject(s) of Photo(s)
1985	Letter	3 execs. - suits, ties, 2 white shirts, 1 lt. blue with white collar - 2 standing, 1 seated, Research and development technology, consumer service efforts, team leadership class
	Narrative	Special lighting for Statue of Liberty, new technology in use, employees at work, customers using products, electric motors, locomotive, international customers using products, MR system, aircraft engines, satellite, baby and bottle, auto bump[ers], factory automation, U.s. customers, affiliated companies
	Supplemental Information	Board of Directors
1986	Financial Highlights	RCA merger, new joint ventures, new jet engine
	Letter	3 execs. - 1 seated, 1 standing, 1 leaning on chair arm (at table) suits, ties, 1 white shirt, 1 blue/white collar, 1 blue and white stripe with white collar, employee at work in research and development center, new manufacturing facility, GE Management Development Institute with students
	Narrative	Aircraft technology, NBC at work, appliance products, customers shopping, aircraft, employees at work, new products, CAT technology, corporate customers and products, communications equipment, customers with products, new technology being used by international customers
	Supplemental Information	Board of Directors (19 pictures), management (8 pictures), operating management (13 pictures)
1987	Financial Highlights	CGR logo, plastic car body, fleet leased trucks, aircraft
	Letter	1 photo - 3 execs. - 1 standing, 1 seated, 1 seated on table edge - suits, ties 1 lt blue with white collar shirt, 2 white shirts
	Narrative	Travelers and stewardess in front of jet's engine, new aircraft engine technology, new satellite for communication in West Europe, ship with Aegis fleet air defense system, bottled water, new plastic for IBM, viewers examining new MRI equipment, 3 people examining blueprints, financial services building in Florida, scene from NBC's "Family Ties," employee working on capacitors, Pauley and Gumble at Summer Olympics, NBC/Olympic logo, satellite dishes, man using GE cellular phone, employee checking GE refrigerators, GE's new line of built in appliances in a home, GE lighting on Golden Gate Bridge, GE upgraded Salem Harbor plant (electricity), new locomotives, new systems for paper making machinery
	Supplemental Information	Board of Directors, management - corporate executive officers and senior corporate officers, operating management
1988	Letter	3 execs. - 1 seated (CEO) and 2 standing 2 Vice Chairs suits and ties, white shirts

Key: shading indicates net loss

Continued

Table K-4. Yearly Subjects of Photographs in General Electric's Annual Reports, 1985-1994 Continued

Year	Report Section	Subject(s) of Photo(s)
1988	Narrative	Employees working with big name customers, employees working, products, products with customers, new technology and new products, foreign headquarters
	Supplemental Information	Individual board members, management and operating management personnel
1989	Letter	3 execs. shirts (2 lt blue, 1 med. blue and white collar) and ties - no coats - standing, Research and Development Center - New York
	Narrative	Private label charge cards, GE plastics for construction, jet engine and international user, NBC clip - new CT and MR technology, innovations in automotive head lamps, user of products, products, information services user, employees at work, products at use internationally
	Supplemental Information	Board of Directors, Senior management officers, operating management personnel
1990	Letter	3 execs. standing - suits, ties, 2 white, 1 blue with white collar shirts
	Narrative	Division heads, products representation of each business segment: aerospace, aircraft engines, appliances, financial services, industrial and power systems, lighting, med. systems, NBC, plastics, community services, electronic distribution and control, motors, transportation systems, international, employees at work, customers with products
	Supplemental Information	Board of Directors, senior corporate officers
1991	Letter	Vice Chair - white shirt and tie - CEO seated at table - other standing
	Narrative	International business negotiations, GE in the community, individual senior VP for each division - head shots - all suit and tie, technological products, relevant division products
1992	Letter	CEO, vice chair, exec. VP - all seated at table, no white shirts - shirts and ties only
	Narrative	Employees in planning session, products, employees working on products, new technology with employees, individual division heads - head shots coats and ties - representative products from each divisions, customers using products, corporate customers using products, international customers, NBC activity, GE in the community, individual board members, retired GE director and vice chair, individual management personnel
1993	Letter	3 in CEO/exec. photo - all seated at table - all in shirts and ties only, 1 white shirt, 1 blue, 1 stripe with french cuffs

Key: shading indicates net loss

Continued

Table K-4. Yearly Subjects of Photographs in General Electric's Annual Reports, 1985-1994 Continued

Year	Report Section	Subject(s) of Photo(s)
1993	Narrative	Employees working out ideas together, new high tech products with customers using, employees at work, new products, individual division management leaders and representative products, customers using products, international customers, NBC focus - new facilities, community service, individual board members, individual management personnel
1994	Letter	1 exec. photo - all seated at table, shirts and ties only, 1 white, 1 lt. blue 1 blue with white, 1 striped with white collar
	Narrative	Research and development's new electrodeless lamp, NBC desktop video. prototype MRT system, new technology in producing plastic for CD's, advances in steam turbines, new auto adjust dishwasher to sense load soil, team working on new washing machines, South West Airline employee checking engine, new side by side refrigerator with more grocery space in family kitchen, division execs. (12), euro trailers financed by GE, new lighting products display, new lab at Ed. Ctr., monitoring NBC superchannel programming, computer made with GE plastics, new gas turbines at new Hong Kong power plant, engineer with new circuit breaker, Motorola and GE representatives working together, GE motors in cement plant in Mexico, new alternating current locomotive, community service activities: tutoring in Atlanta and in North Carolina, deaf students using specially designed computer desktop lab, President's Volunteer Action Award, clean up group (trash along river), employee who mobilized 2,800+ local volunteers for community service project
	Supplemental Information	Board of Directors, senior corporate officers

Key: shading indicates net loss

Table K-5. Yearly Subjects of Photographs in General Motors' Annual Reports, 1985-1995 GM

Year	Report Section	Subject(s) of Photo(s)
1985	Letter	2 sketches in bio. of Smith and McDonald - suits, ties, white shirts
	Narrative	Detroit plant, robotic assembly, Safari van, Caprice Classic Brougham, Cutlass Ciera Brougham, Nova Hatchback, Pontiac Sunbird Turbo ST Convertible, plant employees meeting, Chev. S-10 maxi cab truck, employees in training session, train engines, GMC Brigadier
	MD&A	Robotics at work, Pontiac Grand Am section, new EDS office, employee at computer at EDS, mission control center of data processing center, telecommunications, Mexico's 1st national communications satellite made by Hughes, workers at Delco, Hughes shipboard operations Summary Console
	Supplemental Information	Exec. Committee of Board - individual pictures
1986	Letter	2 execs. - standing - suits, ties, white shirts
	Narrative	Assembly line, quality control check, new products, factory testing, showroom viewing, employees at work, automated presses as new technology, robotic work, overseas operations and products
	MD&A	Employees at work
1987	Letter	2 execs. - suits, ties, white shirts - shoulders and head only
	Narrative	New products, future possible products, 3-day exhibit in New York, quality checks by employees, training on-the-job, quality emphasis in production, computer integrated manufacturing and robotics, section on new models, new designs, and new technology
	Supplemental Information	Executive Committee photos - not whole board
1988	Letter	1 photo of 2 execs. - one seated in chair, one sitting on desk, suit, tie and white shirts
	Narrative	Customer service, satellite for broadcast information and training, employees check quality, purchased components, new sound system, new features in dash on driver's side, anti-lock brakes, air bags, new concept car, new vehicles for the 90s
	Supplemental Information	GM officers (not Board members) - all in suits, ties with white shirts
1989	Letter	1 photo - 2 execs. - sitting on car - suits, ties, white shirts
	Narrative	Employees at work, customers, concept electric car, futuristic information center, new video paint testing system, international automotives, new production technology, photo of new products for the 90s
	Supplemental Information	Board of Directors - 18 ind. photos, 2 women, all men have suits and ties, 2 pinstripe, 3 white shirt, 1 lt. blue

Key: shading indicates net loss

Continued

Table K-5. Yearly Subjects of Photographs in General Motors' Annual Reports, 1985-1995 Continued

Year	Report Section	Subject(s) of Photo(s)
1990	Narrative	Chair, pres. ex. VP candidates, Baldrige Award - Vice chairs, Exec. VPs, European auto products, future products, electric car, current products, division leaders, employees at work, Saturn logo
1991	Letter Narrative	1 exec. standing with car - suit, tie, white shirt International autos, GM employees U.S. & Europe, employees at various plants with vehicle they assemble, remote keyless entry transmitter, theft deterrent key, polymer body side panels, customers with their vehicles
1992	Narrative	All on a fold out - cars and cars in the market competition
1993	Letter Narrative Supplemental Information	CEO, suit, tie, white shirt 4 Execs for N. America, standing, suits, tie, white shirts, 2 individual Execs., suit, tie, shirt, 3 Execs., suits, ties 2 white shirts, 1 color, photos of vehicles President's council (5 execs, suits, ties, white shirts)
1994	Letter Narrative	Chairman - white shirt, tie, standing by/leaning on top of car Nature's network, customer service center, broadcast operations center, international auto models, dry scrub forest, waterfall in rain forest, colossal buttes, tall grass prairie, buffalo, national park in Venezuela, dunes in California, frog, butterfly, Adirondack National Park, whooping crane, Texas Island Preserve, Montana Preserve, domestic new auto products

Key: shading indicates net loss

Table K-6. Yearly Subjects of Photographs in IBM's Annual Reports, 1985-1994

Year	Report Section	Subject(s) of Photo(s)
1985	Letter Narrative	3 execs. - 1 standing, 2 seated, suits, ties, white shirts Computer use to aid hearing impaired, IBM uses in ship and shipping schedules, customers using inventory management, IBM Japan and Nippon T & T in joint venture, textile use to simulate woven cloth patterns on color display, new personal computer printers being displayed, use in manufacturing of athletic shoes, network at German university, engineer working on supercomputer, students using computers, IBM supports Chinese drama, new circuit technology, makeup com. uses for order tracking and billing, control of auto assembly, banking application in restaurant, Chinese language version keyboard, Proprinter, air traffic control, fractal representation of math object, use in atomic particle studies, print ribbons, staff review of networking study, quality control in typewriter production, PC use in Hong Kong school, process control installation, IBM sponsored art exhibit
1986	Letter Narrative	2 execs seated, suits, ties, white shirts Boeing's and IBM customers, UK Stock Exchange uses IBM, Prudential Insurance agent using IBM, child using PC to improve reading, 1 IBM Nobel prize winners, IBM technology for recording sound, weather uses with computer, travel agent using IBM, Korean Iron and Steel Co. production controlled by IBM, IBM telecommunications training center in Washington, DC, customer support personnel, computers in university retraining efforts, telecommunications products, pharmacy dispensing system, touch activated screens, IBM working with community college to develop curriculum in computer integrated manufacturing
1987	Letter Narrative	3 execs - 2 seated, 1 sitting - suits, ties, white shirts IBM and JB Hunt Trucking, newborns in hospital beds, Snap On Tools uses IBM, Panama Canal Commission uses IBM, National Library in Vienna uses IBM network to link to 19 other libraries, hotels use IBM technology, UK post offices use IBM as does consortium of European airlines, Thai keyboard in Thai alphabet, Banque de France uses IBM image processes, Canadian newspaper uses IBM, engineer using PS/2, astrophysicists use IBM, magnet floating above superconducting material, users with IBM to improve literacy skills, IBM database sample from National Museum of Ethnology in Osaka, Japan, IBM supports archeology efforts at Mt. Vesuvius
1988	Letter Narrative	3 CEOs - suit, tie, white shirts - 2 seated, 1 standing Corporate customers, international customers, community service products, industrial division managers, division products or services employees at work, new products

Key: shading indicates net loss

Continued

Table K-6. Yearly Subjects of Photographs in IBM's Annual Reports, 1985-1994 Continued

Year	Report Section	Subject(s) of Photo(s)
1989	Letter Narrative	Chairman standing - president seated - suits and ties Companies who rely on IBM, people who work at these companies, community involvement of employees and community activities made possible because of IBM funds, person using new technology, product of manufacturing process
1990	Letter Narrative	Black and white - 2 execs - shoulder/head - suits, ties, white shirts Students with IBM boxes, IBM software, school supplies, airplane, asian coins, fireman on firetruck, vault, flowers, Latin American girls, ship technology, fiber optics, ships, bag of Fritos, CD rom disk, student at chalkboard, multimedia technology, old books, Thailand automotive, gear, crumpled paper, globe, storm, computer modeling, MRI procedure, computer screen customers, customer using computer, Baldrige Award
1991	Letter Narrative	3 execs - suits, ties, white shirts - 1 seated , 2 standing International manufacturing facility, international customers, Apple and IBM employees working together, U.S. Customers, community involvement
1992	Letter Narrative	1 exec photo - 2 standing, suits, ties, white shirts Various PS systems in use around the world, various trucking fleets who use IBM, various global customers of IBM, various ways of sending communications secret formula of people, goods produced with IBM Application Solutions, storage places for information, various ways of presenting thoughts, various IBM technology
1993	Letter Narrative	Exec. seated by computer - lt blue shirt and tie - no coat IBM and olympics, IBM and Target chain, Kiosks in California to reduce long lines, team of IBM, Apple, and Motorola chip engineers, microprocessors overlaid on flower, movie special effects with IBM parallel systems, OS/2, IBM system that monitors freight transport including trains, Mobile's logo - IBM user, hand-held devices used by vets to communicate with colleagues from remote locations, IBM scientists with big discoveries, personal dictation system

Key: shading indicates net loss

Continued

Table K-6. Yearly Subjects of Photographs in IBM's Annual Reports, 1985-1994 Continued

Year	Report Section	Subject(s) of Photo(s)
1994	Letter	One exec. sitting, knee up with arm on knee - blue with white pin stripe, cuffs and collar, tie - no coat
	Narrative	Customers who use products, new disk technology, school students who use product, video conferencing with IBM equipment, online masterpieces, Whiteout bottle, international customers, new laptop technology, Russian customers, other international customers, family members working together on IBM, new corporate customers, corporate community activities

Key: shading indicates net loss

Table K-7. Yearly Subjects of Photographs in International Paper's Annual Reports, 1985-1995

Year	Report Section	Subject(s) of Photo(s)
1985	Letter Narrative	Chair/CEO - head shot-suit, and tie; President - head shot - suit and tie Emphasis on people working together, facilities, customers, employees, managers in profile
1986	Letter Narrative	CEO and Pres. - suit and tie - standing on spiral staircase Employees, products, manufacturing facilities, machinery, consumer end product and consumers using products, international facility, reforestation
1987	Narrative	Plant, employees working, products, customers with products, people who benefit from company based funding (community involvement)
1988	Letter Narrative	Exec. - seated on back of chair, suit, tie, white shirt, 4 pictures of top company execs -16 execs. - 12 in suits, all with ties, 12 white shirts, 3 lt. blue, 1 white with burgandy stripes Hammermill papers, Strathmore and Beckett products, magazines, uses of wood pulp, packaging boxes, juice containers, carton board products, industrial papers, other paper products, wood products, masonite products, photographic materials, Veratee products
1989	Letter Narrative	CEO - suit and tie - standing Emphasis on facilities, consumer products produced, subsidiaries, and their contributions, employees at work
1990	Financial Highlights Letter Narrative	High tech production control with employee Exec., suit, tie, lt blue shirt, standing with one foot propped up and arm on knee Employees working with corporate customers, paper machine in manufacturing plant, international research and development, international clients, international customers using products, natural resources, manufacturing team of employees, quality control of environmental element of water, recycling pilot project for milk cartons in school
1991	Letter Narrative	CEO - shirt and tie - not coat - seated Research manufacturing facilities, chairman/CEO, customers and products used, employees at work, products, ecology efforts, division administrators, directors at work in board room and factory
1992	Letter	CEO - seated on desk - coat and tie

Key: shading indicates net loss

Continued

Table K-7. Yearly Subjects of Photographs in International Paper's Annual Reports, 1985-1995 Continued

Year	Report Section	Subject(s) of Photo(s)
1992	Narrative	Various products, vast forest, new acquisitions, new products, customers, employees at work, environmental matters, products/product divisions, 9 Execs and Sr. VPs
1993	Letter Narrative	Exec. seated at table, suit, tie, white shirt with blue pinstrips Working with customers, new laser technology, construction of new facility, European markets, recycling to make new paper, various printing papers, packaging papers, Fed Ex uses products, milk and juice carton recycling, employee working on new food labeling, packaging products, paper to customer Kinko's, distribution products, nonwoven product, environment friendly paint, Craftmaster door casings, employees planning oil well drilling, plate imaging directly from laser, various specialty products, inspecting pine tree seedlings, wood products, forest products, experiment forest in Georgia
	Supplemental Information	Working Board - 3 photos of board members in various plants
1994	Letter Narrative	4 shots of exec, head shot, black and white, suit, tie, pinstripe shirt, children Paper and globe and maps, facility in Poland, Far East customers, aseptic packaging facility, new world class paper machine in Riverdale, propriety deinking process, workteams, packaging products in use, Triton beverage packaging system, Omniwood siding on house, Supertree seedlings nursery, elemental chlorine free mill, young boy on pier at lake setting
	Supplemental Information	photos of senior management at work -- black and white (10 photos)

Key: shading indicates net loss

Table K-8. Yearly Subjects of Photographs in Kodak's Annual Reports, 1985-1994

Year	Report Section	Subject(s) of Photo(s)
1985	Financial Highlights	Photo with Ektachrome 64
	Letter Narrative	2 execs. suits, ties, one pin stripe, one lt. blue shirt - in plant controls area Kodak ad in foreign country, Kodak division exec, clinical diagnostic film, Ektaprint copier - duplicators, heat sealing high density optical disks, new facility, new prototype computer link for page layout, photo on Kodacolor VR 200 film, pipe fabricators, autoprint by Kodak, hand held terminals in use, expanded facility for Eastotac resin, nutritional supplements for dairy cows, photo on Kodachrome 64, fiber optics in use, microorganisms image by computer researcher, DNA with drug bound to it via computer generation, photo with Ektachrome 64, lab robots, researchers at work, continuous reactor system, shake flask cultures, photo with Kodacolor VR G 100 film, Kodak image management system, Ektaprint electronic publishing, digital graphic arts system, 13 new products, photo with Ektachrome 64 film
	Supplemental Information	Management Change
1986	Financial Highlights	Building with KODAK in neon lights
	Letter Narrative	3 photos of execs - one in suit, tie, lt. blue shirt, one in lt. blue shirt, tie, one in lt. blue shirt and sweater vest One using Ektachrome 64, blank camera film, employees at color testing station, use of low-temperature luminescence microscopy, electronically readable DX codes on colorwatch logo, manufacturing of photographic film, R&D on traditional photography, precision hopper at manufacturing of Estar film support, new batteries, new film and cameras, new T Max film, Kodachrome 200 slide film, photo from Kodachrome 25, numerical keypad, new manufacturing for production of rollers for copier-duplicators, microimage terminal, digital imaging camera system, new computer assisted retrieval system for document image management, new copier paper, new options on duplicator, electronic printer, new Kodak signature color proofing system, photo from Kodachrome 25, fibers, new hydroquinone production plant, PET pellets, expansion of PET polymer capacity, disposable trays, animal health and nutrition research station, blood analyzer, test tubes in circular tray, solid state 1.4 million pixel sensor, advanced new Kodak mammography system, Ektascan image transmission system, new research facility in France for X-ray and photo products, new Biological Products Development Center, chemical flasks, bio-products manufacturing activities, SHOMAX, Kodak as advertised at Asian Games in Seoul, R&D activities, Ektaprint mirror production, high speed film chopper for pref. sheet film, electronic transparency system in use, sunset photo (2 pg. spread)
	Supplemental Information	Management change/40 Board of Directors

Continued

Table K-8. Yearly Subjects of Photographs in Kodak's Annual Reports, 1985-1994 Continued

Year	Report Section	Subject(s) of Photo(s)
1987	Letter	One photo of 3 execs - suits, ties, one white, 2 blue shirts - standing by awards
	Narrative	Child, new film product, professional photographers, new lenses capability, new products: camera, ID badges on Kodak video system used by police, new black and white product sample photo, Kodak's support of NASA, pre-press art reviews thru graphic video, , color copier, film sused to reproduce quality in publications, computer color printing, optical disk, photo taken on Ektachrome 64, hollow fiber membranes used in kidney dialysis, acetate yarns, environmental protection, special plastics for food/drink containers, photo with Ektachrome 100, X-rays with doctor, infant hand in adult's, indestructable disks, photo from professional photographer - university setting, new pharmaceuticals plant, researcher at work, snow skier on artificial snow from Kodak equipment, photo from professional photographer - math team who used supercomputer, team to improve qualilty of process and product
	Supplemental Information	Board of Directors - 2 new ones only, suit, tie, white and lt. blue shirts
1988	Letter	4 photos - 3 execs - standing, suits, ties, 2 white/1 blue shirt, world marketplace, Seoul olympic activities
	Narrative	products segments, VPI GM and sample of photos taken with various products, consumers and products, research and development center in Japan - employees at work
1989	Letter	2 pics - Kodak scientist at work, 2 execs with new motion picture color negative film and new projections equipment - suit, ties, and lt. blue shirts - standing
	Supplemental Information	Board of Directors - 3 photos of new members
1990	Letter	President/CEO seated in chair, suit, tie, and lt. blue shirt, new photo CD system
	Narrative	Collage of Kodak's new products, general managers of company's operating groups, directors of company's corporate staff units, large sailboats, new copier/printer employees, new aqueous lithographic printing plates, recognition awards, results of photo with Ektar film, medical applications of Kodak products, construction of addition to coal gasification faciility, environmental initiatives, recycling and communication activities, Eiffel Tower, international aspects of Kodak
1991	Letter	4 individual execs. - standing, suits and ties, one seated on table
	Narrative	Products customers using products - end products - products by division, new technology products - facilities, new products, foreign subsidiaries, old and new affiliations - seal and spokesperson, Bill Cosby - community involvement, one new management person

Key: shading indicates net loss

Continued

Table K-8. Subjects of Photographs in Kodak's Annual Reports, 1985-1994 Continued

Year	Report Section	Subject(s) of Photo(s)
1992	Financial Highlights	X-ray film, pills, chemical in bottle, man standing on CD disk pulling end of large roll of new film
	Letter	One headshot of one exec., stripped wine and white shirt and tie (thin stripes), no suit, sample photos using Kodak film of family biking together, Ektacolor processing, small particle technology
	Narrative	Customers in various situations using Kodak, photos, film, camera, animated film, copier and sample output, mock-up with photo, bold color with Ektachrome, new printer projects, photos of sample products, lab work, peridental test kit, carpet and wall cleaners with toddler, pre-filled syringes, pills, baby toy, toothbrush, towels with Tide detergent
	Supplemental Information	Board of Directors - new board member only
1993	Letter	CEO - blue shirt and tie holding funsaver camera - standing top 1/2 body only, new CEO
	Narrative	Global stores, Kodak race car, Olympics which Kodak supports - Kodak brands and trademarks - new technology in use by corporate customers - new products - improved products and results - customers using new equipment - community involvement - awards: Baldrige Award
	Board of Directors	incoming and outgoing board members - 1 each
1994	Letter	CEO - cream shirt and tie, no coat - in film negatives - talking and using gestures and playing with Funsaver cameras
	Narrative	products, customers using products, end results of using film - new products, international stores, new equipment and technology, customers at home and abroad,
	Board of Directors	group picture - Board of Directors

Key: shading indicates net loss

Table K-9. Yearly Subjects of Photographs in Philip Morris' Annual Reports, 1985-1994

Year	Report Section	Subject(s) of Photo(s)
1985	Letter	1 photo - 4 men - suit, tie, white shirts, 1 standing
	Narrative	Cured tobacco leaves, General Foods, Miller Beer, 7-Up, Mission Viejo
	Supplemental Information	Board - division pictures
1986	Financial Highlights	5 shots representing products
	Narrative	Raw materials manufacturing with employees working, products packaged - warehouse shipping and on the store shelf advertising
	Supplemental Information	Individual board member pictures
1987	Financial Highlights	6 photos - 5 people at different plants and 1 with products and raw materials
	Narrative	Tobacco warehouse, turkey farm, malting barley, employees and technology, export employees, products and employees
	Supplemental Information	Board members - individual pictures
1988	Narrative	Products, products being used by consumers worldwide
	Supplemental Information	Board members pictures
1989	Letter	1 photo with 10 execs - suits, ties, 9 white shirts and 1 cream
	Narrative	(10 photos) of Phillip Morris, USA, Phillip Morris International, General Foods USA, Kraft USA, Kraft General Food International, Kraft General Foods Canada, Oscar Meyer Foods, Kraft General Foods Frozen Products, Kraft General Foods Commercial Products, Miller Brewing Co., tobacco processing, William Murray, Marlboro ad, Ehad Hormoner, cigarette photos, research and development, Germany Marlboro smokers, Alcardo Buzzi, 3 cigarette photos overseas, Michael Miles, child with Koolaid pop, microwave ready Cheese Whiz in production, breakfast products on kitchen table with mom and son, Giddeons Bible, research oils, fat free technology, Oscar Meyer products with employees, new products, test kitchen, international family, grocery shopping, fat free dressing, G. Goebeler with Kraft Cheese, Oscar Meyer bun lengths, hotdogs, Fini fresh medts. T. Herskovitas, L. Goldstein, 2 beer consumer pictures, Millers Milwaukee brew house, Miller in cooler, 3 more beer pictures, Kraft del.
	Supplemental Information	Board of Directors - individual pictures - 22 men - suits, ties, 13 white shirts, 2 lt. blue, 3 pinstripe, 4 women, photos of Bill of Rights in glass display case

Key: shading indicates net loss

Continued

Table K-9. Yearly Subjects of Photographs in Philip Morris' Annual Reports, 1985-1994 Continued

Year	Report Section	Subject(s) of Photo(s)
1990	Letter	Phillip Morris management visiting with Tokyo retailer - standing in street, suits, ties, white shirts
	Narrative	Products by division, advertising in international markets, people smoking Phillip Morris products, shipping Phillip Morris cigarettes, new products, food products, people consuming food products, international users of food products, beer products and people consuming same
	Supplemental Information	Board of Directors - individual photos, corporate responsibility, Star Serve youth with Bush - education project, underwritten by Kraft General Foods
1991	Letter	2 execs. standing - suit, tie, white shirt, photo of Maxwell outgoing chair and CEO (84-91)
	Narrative	Raw materials with people, employees at work, products by segment, international segment employees and products, food products and food division employees at work, new products, international food products, beer products and employees, beer consumer, corporate citizenship
	Supplemental Information	Board of Directors - individual pictures
1992	Letter	Execs. - standing, suit, tie, white shirts
	Narrative	Employees and employees at work, diversity award, products, people using products, international consumers using products, products by business segment, citizenship efforts
1993	Financial Highlights	Cigarettes, food products, beer
	Letter	Execs.(2) standing - suit, tie, white shirts
	Narrative	Food products and beer logos, Hong Kong couple with Marlboro, Europeans with Jacob's coffee, child with Kraft Singles, products used in international countries with the consumer, products used in U.S., young man with Miller, Marlboro's popularity at home and abroad, family with breakfast foods, couple shopping with Kraft products in Italy, Kraft consumers in Shanghai, people in bar drinking Miller brands
	Supplemental Information	Board - 6 group photos
1994	Financial Highlights	All products mixed together, tobacco products, food products, beer products
	Letter	Chairman/CEO - suit, tie, white shirt, standing holding cigarette
	Narrative	International tobacco, domestic tobacco, international food, beer, N. American Food (all with consumers), man with Marlboro, cigarette brands by Phillip Morris, international consumers with tobacco, N. American Food products, with consumers, international consumer of foods (2), kids with ice cream in Brazil, beer products, 2 friends drinking 2 types of ice beer
	Supplemental Information	Board of Directors - 17 pictures -2 women - men all suits and ties white shirts

Key: shading indicates net loss

Table K-10. Yearly Subjects of Photographs in Tenneco's Annual Reports, 1985-1994

Year	Report Section	Subject(s) of Photo(s)
1985	Letter	CEO/President - suite, tie, white shirt - CEP seated, President standing, Exec. VPs - suits, ties, 2 white shirts, 1 white with red small stripe - 2 seated, 1 standing
	Narrative	Offshore exploration, domestic drilling, international drilling, pipelaying, customer using products, refinery, ship in shipyard, new product submarine, shocks and mufflers, case equipment, pkg. products, new technology, new plant international
1986	Letter	CEO/president - suit, tie, white shirts, 1 standing, 1 seated on table, senior management team (3 people) - suit, tie, w white shirts, 1 pink shirt - 2 standing, 1 seated on table, staff officers (4 people) - suit, tie, 2 white shirts, 1 blue with white, 2 standing, 1 seated, 1 leaning on table
	Narrative	Oil rigs, presidents of energy companies, offshore rigs, employees working on rigs and pipelines, conservation, operations center, employees at work, gas outlet, shipbuilding, president of manufacturing companies, employees and customers with product, new technology, farm equipment, construction equipment, execs of natural resources, customer buying product
1987	Letter	5 photos of execs - 2 top men standing - suit, tie, white shirt, and white shirt with red pin stripe, 3 other execs - chest/head only - suit, tie, 2 white shirts and one lt. blue
	Narrative	Ocean drilling rig, international drilling, employees working on rig, Tenneco properties, new technology, new equipment, gas station, shipbuilding, shocks and struts, employees at work and with new product, research, industrial and farm equipment
1988	Letter	CEO - standing at chair - suit and tie - 2 Exec. VP - suits and ties, seated with upper body only
	Narrative	Products, product management, facilities, customers and products
	Supplemental Information	Individual board members
1989	Letter	32 execs - 2 seated, 1 standing, suits, ties, 2 white shirts and 1 blue shirt
	Narrative	Pennsylvania steel mill with worker, large markets for gas, residential gas use, farm equipment automotive parts used in Cadillacs, products attack submarine and ship pictures, new technology, international plant
	Supplemental Information	Corporate citizenship - 3 pictures - 1 of student at volunteer wildlife habitation, Tenneco right of way, Tenneco sponsored marathon

Key: shading indicates net loss

Continued

Table K-10. Yearly Subjects of Photographs in Tenneco's Annual Reports, 1985-1994 Continued

Year	Report Section	Subject(s) of Photo(s)
1990	Letter	2 execs - 2 seated, 1 standing, suits, ties, 2 white shirts, 1 lt. blue shirt
	Narrative	Products representing each segment, employees at work, dispatch center, Tenneco newsletter, internationally produced products, new and improved products, christening new submarine, reforestation, raw materials, environmental concern efforts
	Supplemental Information	Board of Directors - 3 group and 1 individual
1991	Letter	1 photo - shirt and tie, white shirt - close up shoulder/head
	Narrative	Black and white of heads of each division
1992	Letter	1 photo - CEO and president - seated and leaning over shoulder propped on chair back, white shirts and ties - President with suspenders - black and white
1993	Financial Highlights	photos (6) representative products of each division
	Letter	President/CEO, suite, ties, striped shirts - standing
	Narrative	Directors, presidents of division, employees at work, drilling rig, quality assurance deals for tractors, products automotive products, technology in plants
1994	Financial Highlights	Products representation of each division
	Narrative	European acquisition, ship repair, farm equipment, packaging products, global with S. America and Australia showing ships, international ventures, gas lines, offshore platforms, recycling, automotive products, construction equipment

Key: shading indicates net loss

**APPENDIX L: TABLES 1-10. SUBJECTS OF ANNUAL REPORT
FIGURES BY COMPANY, YEAR, AND ANNUAL REPORT SECTION**

Table L-1. Yearly Subjects of Figures in Alcoa's Annual Reports, 1985-1994

Year	Report Section	Type of Figure	Subject of Figure
1985	Financial Highlights	column	Sources and Distribution of 1985 Revenues
		column	Revenues and Shipments by Principal Classes of Products, Revenues by Principal Markets
		pie charts	Total Revenues from Principal Markets, Total Shipments, Principal Classes, Total Revenue from Principal Classes
		line graphs	Index of Alcoa Prices for Basic Mill Products and Major Costs, Aluminum Mill Product Imports into U.S. vs. Exchange Value of U.S. Dollar, Capital Expenditures Distribution
	MD&A	grouped column	Return on Alcoa Common Stock vs. S&P 500 Stocks, Common Stock Data, Capital Expenditures and Funds from Operations, Total Tax Burden in Relation to Income Before All Taxes
		column	Debt as Percent of Invested Capital
		divided column	Alcoa's Primary Aluminum Capacity, Comparison of Western World Primary Aluminum Capacity Ownership - Cost of Goods as a Percent of Sales - Aluminum Product Shipments - Primary Aluminum Production - Trading Activity of Alcoa Common Stock vs. S&P 500
		surface graph	Dollar Exchange Value of a Basket of European Currencies, Revenues from Raw Materials, Alumina, and Primary Aluminum as a Percent of Total Revenues, Alcoa's Research and Development Expenditures - Index of Alcoa's Energy Costs - U.S. Primary Unalloyed Ingot Price
		timeline	Significant Developments Over Past Decade in 3 Areas of Aluminum Operations, Technology and Raw Material Development, Restructuring
		pictogram	Elements of a Fiber Optics Cable Colored Coded to Show Layers, Layers of Polymers in Fresh Food Container

Key: shading indicates net loss

Continued

Table L-1. Yearly Subjects of Figures in Alcoa's Annual Reports, 1985-1994 Continued

Year	Report Section	Type of Figure	Subject of Figure	
1986	Financial Highlights	line graph	Comparison of Hourly Wages and CPI-W, Decrease in Can Weight, Index of Alcoa's Major Costs	
		Narrative	divided column	Capital Expenditures Distribution, Aluminum's Share of U.S. Beverage Can Market, Free World Primary Aluminum Capacity, Aluminum Product Shipments, Cost of Goods Sold as Percent of Sales, Alcoa's Primary Aluminum Capacity, Trading Activity of Alcoa Common Stock vs. S&P 500
			column	Alcoa's Primary Aluminum Shipments as Percent of Total Shipments, Revenues, Growth in Aluminum Consumption in Brazil, Alcoa's Research and Development Expenditures Debt as Percent of Invested Capital
			grouped column	Revenues and Shipments by Division, Total Tax Burden with Relation to Income Before Other Taxes, Capital Expenditures and Funds from Operations
			flow chart	Production of Large Rolls of High Quality Can Sheet, Armor System Struck by Futuristic Bullet, Separation System to Purify Corn Syrup
		MD&A	pie graphs	Alcoa's Investments in Equity Companies Outside U.S. , Sources of Alcoa's 1986 Consolidated Revenues, Revenue by Division, 1986 Revenue Source by Product
			grouped dev. col.	Return on Stockholders' Equity and Invested Capital Common Stock Data
	1987	Narrative	pie charts	1987 Capital Expenditures by Group, Source of 1987 Revenues
			line graphs	Return on Stockholders' Equity, Index of Major Cost in the U.S., Return on Invested Capital
			divided column	Revenue by Geographic Region, Operating Profits by Geographic Region, Aluminum Product Shipments, Primary Aluminum Capacity, Primary Aluminum Production, Components of Invested Capital
		MD&A	column	Index of Aluminum Inventories, Packaging Systems Revenues, Aerospace and Industrial Products Revenues, International Revenues, Metals and Chemical Revenues, Material Science Revenues, Cost of Goods Sold as a Percent of Sales, Research and Development Expenditures
		grouped dev. col.	Common Stock Data	

Key: shading indicates net loss

Continued

Table L-1. Yearly Subjects of Figures in Alcoa's Annual Reports, 1985-1994 Continued

Year	Report Section	Type of Figure	Subject of Figure
1987		grouped column	Capital Expenditures and Depreciation Expense, Price/Earnings Ratios of Alcoa vs. S&P 500 Index, Trading Ranges of Alcoa Common Stock vs. S&P 500
1988	MD&A	pie chart	Sources of 1988 Revenue
		column	Operations Revenue by Division, Earnings per Common Share, Cost of Goods Sold as Percent of Sales, R & D Expenditures
		line graph	Return on Shareholders' Equity, Index of Major Costs in the U.S., Return on Invested Capital
	divided column	Aluminum Product Shipments, Primary Aluminum Production, Primary Aluminum Capacity, Components of Invested Capital	
	Supplemental Information	grouped column	Capital Expenditures, Depreciation Expense
		grouped column	Trading Ranges of Alcoa Common Stock vs. S&P 500, Price/Earnings Ratios of Alcoa vs. S&P 500
1989	Narrative	pie chart	Sources of 1989 Revenue, Sources of Revenue by Division
		line graph	Reducing Power Loss at Wenatchee, Reducing Sheet Thickness Variation, Wire Harness Tolerance Range, Melt Index Variation
		drawing	Scrap Coil Feeder, Aerostar Wheels
	MD&A	surface graph	Stolle's Memory Disk Production, Reducing Tape Mounts
		spot map	Brazilian Plant Locations
		divided column	Aluminum Beverage Cans Made and Recycled in U.S., Injuries at the Massena Smelter, Components of Invested Capital, Operating Profit by Geographic Area, Aluminum Shipments, Primary Aluminum Capacity, Primary Aluminum Production
		column	Controlling Variation in Setting Anodes, Causes of Filter Cloth Failures, Meeting Kodak's Quality Requirements, Revenues by Division, Earnings per Common Share, Cost of Goods Sold as a Percent of Sales, Dividends per Common Share
		grouped column	Return on Shareholders' Equity, Capital Expenditures and Depreciation Expense, Return on Invested Capital

Key: shading indicates net loss

Continued

Table L-1. Yearly Subjects of Figures in Alcoa's Annual Reports, 1985-1994 Continued

Year	Report Section	Type of Figure	Subject of Figure
1989	Supplemental Information	grouped column	Trading Ranges of Alcoa Common Stock vs. S&P 500, Price/Earnings Ratios of Alcoa vs. S&P 500 Index
1990	Financial Highlights	pie chart	Sources of 1990 Revenues
		line graph	Monitoring Silicon Content in Aerospace Alloys, Reroll Stock Inspection Results
	Narrative	column	Reducing Anode Burn-Offs
		grouped column	Increasing Hauling Efficiency
	MD&A	column	Value of Recyclables
		drawings	Tamperproof Lid for Shell Motor Oil, Partial Cross-Section of Smelting Pot, Wire Harness in Autos
		pie chart	Sources of Revenues by Segments: Metal and Chemicals, Aerospace and Industrial, Products Packaging Systems, Materials Science
		column	Revenues (5 Years) by Segments: Metals and Chemicals, Aerospace and Industrial, Products Packaging Systems, and Materials Science, Earnings per Common Share, Cost of Goods Sold as a Percent of Sales
		divided column	Operating Profit by Geographic Area, Aluminum Product Shipments, Primary Aluminum Production, Primary Aluminum Capacity, Components of Invested Capital
		grouped column	Return on Shareholders' Equity, Capital Expenditures and Depreciation Expense, Return on Invested Capital
Supplemental Information	column	Dividends per Common Share	
	grouped column	Trading Ranges of Alcoa Common Stock vs. S&P 500 Index, Price/Earnings Ratios of Alcoa vs. S&P 500 Index	
1991	Financial Highlights	pie chart	1991 Revenues by Geographic Area
		divided column	Operating Profit by Geographic Area - e Year, Primary Aluminum Capacity, Primary Aluminum Production, Aluminum Product Shipments, Returns on Shareholders' Equity, Return on Invested Capital, Components of Invested Capital, Dividends per Common Share
Narrative			

Key: shading indicates net loss

Continued

Table L-1. Yearly Subjects of Figures in Alcoa's Annual Reports, 1985-1994 Continued

Year	Report Section	Type of Figure	Subject of Figure
1991	MD&A	pie chart	1991 Revenues by Segment, 1991 Revenues by Market
		spot maps	Operations by Category Worldwide, Brazil Acquisition
		column	Revenues by Market - 5 Years, Cost of Goods Sold as a Percent of Sales, Cash from Operations
		grouped column	Capital Expenditures and Depreciation Expense, Trading Ranges of Alcoa Common Stock vs. S&P 500 Index
		line drawing	Super Jumbo Jet, Auto Hang-on Parts, Unit Body, Space Frame Carson Curvy Highway - Stop Sign
		pictograms	Column Graphs with Cars On It, Less Weight = Lower Emissions, Lower Weight = Higher MPG, Value of Recyclable Materials - Increase in Size of Car to Show Change - Bar Graph with Cars - Lower Weight = Better Acceleration
		bar graph	Energy Absorbing Ability
1992	Financial Highlights	pie chart	1992 Revenues by Segment, 1992 Revenues by Geographic Area, 1992 Revenues by Market
		column	Individual Markets
		Letter	Market Value of Alcoa Common Stock
		column	Dividends per Common Share
		Narrative	Recycling Aluminum Cans, Light Weighting Beverage Cans
		column	Building and Remodeling, Growth in Air Travel
		divided column	Good Lighting Saves Energy
		grouped column	Cost of Goods Sold as Percent of Sales
		MD&A	Recent Returns on Stockholders' Equity
		column	Capital Expenditures and Depreciation Expense
		deviated column	Aluminum Product Shipments, Aluminum Production, Primary Aluminum Capacity, Operating Profit by Geographic Area
		surface graph	Aluminum in Automobiles

Key: shading indicates net loss

Continued

Table L-1. Yearly Subjects of Figures in Alcoa's Annual Reports, 1985-1994 Continued

Year	Report Section	Type of Figure	Subject of Figure	
1993	Financial Highlights Narrative	line graph	Nonfinancial Indicators	
		line drawing	Crowd of People, Kangaroo on a Globe, Female in Suit with Alcoa Flag Landing from Aluminum Can Boat, Car on Scales with Smiling Globe Face on Male Body in Suit and Tie, Airplane with Globe-Shaped Cockpit	
	Supplemental Information	MD&A	line graph	Quantum Leap: Improvement in the Life of Smelting Cells, Quantum Leap: Recovery of Materials Costs
			column	Quantum Leap: Reduction in Can Sheet Inventory, Quantum Leap: Workdays to Calculate Corporate Earnings
			pie chart column divided column line drawings	1993 Revenues by Market Market Value of Alcoa Common Stock, Alcoa's Disabling Injury Rate Dividends per Common Share Map Showing Japan, Front End of Truck, Maps Showing India, Hungary, Mideast; House Symbol
1994	Financial Highlights	pie chart	1994 Revenues by Geographic Area, 1994 Revenues by Market Revenues by Market	
	Letter	divided column	Dividends per Common Share	
		column	Market Value of Alcoa Common Stock	
	MD&A	divided column	Aluminum Product Shipments, Average Number of Employees	
		grouped column	Percent Return on Shareholders' Equity, Capital Expenditures and Depreciation	
	column	Alcoa's Average Realized Ingot Price, Cash from Operations		

Key: shading indicates net loss

Table L-2. Yearly Subjects of Figures in DuPont's Annual Reports, 1985-1994

Year	Report Section	Type of Figure	Subject of Figure
1985	Financial Highlights	columns	Sales, Net Income, Earnings per Share, Dividends per Share, Net Return on Equity, Research and Development, Debt Ratio, Total Borrowings, Capital Expenditures
	Narrative	columns	Sales and After-Tax Operating Income by Segment: Biomedical Products, Industrial and Consumer Products, Fibers, Polymer Products, Agricultural and Industrial Chemicals, Petroleum Exploration and Production, Petroleum Refining, Marketing, and Transportation, Coal
	MD&A	divided column	Total Capitalization at Year End
1986	Narrative	columns	Sales and After-Tax Operating Income for Segments: Biomedical, Industrial and Consumer Products, Fibers, Polymers, Agricultural and Industrial Chemicals, Petroleum Exploration and Production, Petroleum Refining, Marketing, and Transportation, Coal
	MD&A	columns grouped columns divided column grouped, div. col	Dividends per Share Dividend Payment Total Capitalization at Year End Cash Provided by Operations vs. Funds Used for Dividends, Cash, Expenditures, and Major Acquisitions
1987	Narrative	timeline columns	Discovery and Innovation Sales and After-Tax Operating Income by Business Segment, Agricultural and Industrial Chemicals, Biomedical Products, Coal, Fibers, Industrial and Consumer Products, International Uses of Products, Raw Materials, New Technology and Development Representing Business Segments, Corporate Customers, Petroleum Exploration and Production, Petroleum Refining, Marketing, and Transportation, Polymer Products
		deviated columns	After-Tax Income for Agricultural and Industrial Chemicals and Petroleum Exploration and Production

Key: shading indicates net loss

Continued

Table L-2. Yearly Subjects of Figures in DuPont's Annual Reports, 1985-1994 Continued

Year	Report Section	Type of Figure	Subject of Figure
1987	MD&A	columns	Sales, Net Income
		divided column	Total Capitalization at Year End
		grouped column	Earnings and Dividend per Share
		grouped, div. col.	Cash Provided by Operations vs. Funds Used for Dividends, Capital Expenditures and Major Acquisitions
		pie chart	1987 Capital Expenditures by Industrial Segment
1988	Narrative	columns	Sales and After-Tax Income by Segments: Biomedical, Agricultural, and Industrial Chemicals, Coal, Fibers, Industrial and Consumer Products, Petroleum Exploration and Production, Petroleum Refining, Marketing, and Transportation, Polymer Products
		deviated columns	After-Tax Operating Income, Biomedical Products, Upstream After-Tax Operating Income for Petroleum Exploration and Production
		pie chart	International Sales by Regions
	MD&A	columns	Sales, Net Income
		divided columns	Total Capitalization at Year End
		grouped, div. col.	Cash Provided by Operations vs. Payments for Dividends and Certain Investment Activities
		pie chart	1988 Capital Expenditures
1989	Financial Highlights Narrative	pie chart	Sales by Geographic Region
		columns	After-Tax Operating INcome for Each Segment: Industrial Products, Fibers, Polymers, Petroleum, Coal, Diversified Businesses
		divided columns	Sales by Segment: Industrial Products, Fibers, Polymers, Petroleum, Coal, Diversified Businesses
	MD&A	columns	Sales by Segment, 1989 Capital Expenditures by Segment, 1989 After-Tax Operating Income by Segment, 1989 Capital Expenditures by Category
		divided columns	Total Capitalization at Year End
		grouped, div. col.	Cash provided by Operations vs. Payments for Dividends and Certain Investment Activities

Key: shading indicates net loss

Continued

Table L-2. Yearly Subjects of Figures in DuPont's Annual Reports, 1985-1994 Continued

Year	Report Section	Type of Figure	Subject of Figure
1990	Financial Highlights	divided bar graph	Sales
		bar graph	Chemical Sales, Chemical After-Tax Operating Income (ATOI), Fibers Sales, Fibers ATOI, Polymers Sales, Polymers ATOI, Petroleum Sales, Petroleum ATOI, Coal Sales, Coal ATOI, Diversified Sales, Diversified ATOI
	Narrative	drawing	New Oil Tankers
		line graphs	Hazardous Wastes, Airborn Toxic Emissions, Airborne Carcinogens, Energy Consumption, Environmental Expenses
1991	MD&A	columns	Sales, Net Income
		grouped column	Dividends and Cash Provided by Operations
	Narrative	divided columns	Total Capitalization at Year End
		divided column	1991 Global Sales, 1991 Research and Development Spending by Industrial Segment
1992	Financial Highlights	columns	Capital Expenditures
		surface graph	Hazardous Waste, Airborne Carcinogens, Airborne Toxic Emissions, Energy Consumption
	Narrative	bar graphs	Chemical Sales, Chemical After-Tax Operating Income, Fibers Sales, Fibers After-Tax Operating Income, Polymer Sales, Polymer After-Tax Operating Income, Petroleum Sales, Petroleum After-Tax Operating Income, Diversified Business Sales, Diversified Business After-Tax Operating Income
		MD&A	columns
1993	Financial Highlights	grouped columns	Capital Expenditures by Industrial Segment, Dividends and Cash Provided by Operations
		divided column	Total Capitalization at Year End
		surface graph	Reduction of Hazardous Waste by Element
1994	Narrative	drawings	Thematic Uses of Division Products - House, Clothes, Auto, Gas Station Pump, Segmented Circle with Leaf
		bar graphs	Sales and After-Tax Operating INcome for Each Division

Key: shading indicates net loss

Continued

Table L-2. Yearly Subjects of Figures in DuPont's Annual Reports, 1985-1994 Continued

Year	Report Section	Type of Figure	Subject of Figure
1992	MD&A	columns grouped columns divided column	Sales, Net Income Capital Expenditures by Industrial Segment, Dividends and Cash Provided by Operations Total Capitalization at Year End
1993	MD&A	divided column grouped columns	Total Capitalization at Year End Dividends and Cash Provided by Operations, Capital Expenditures by Industry Segment
1994	Letter Narrative	line graph columns	Dupont vs. S&P Chemicals Sales, Chemicals ATOI, Fibers Sales, Fibers ATOI, Polymers Sales, Polymers ATOI, Petroleum Sales, Petroleum ATOI, Diversified Businesses Sales, Diversified Businesses ATOI

Key: shading indicates net loss

Table L-3. Yearly Subjects of Figures in Exxon's Annual Reports, 1985-1994

Year	Report Section	Type of Figure	Subject of Figure
1985	Narrative	divided columns	Net Liquid Production and Supplies, Crude Oil and Natural Gas Liquids Reserves, Producing Capital and Exploration Expenditures, Natural Gas Production Available for Sale, Natural Gas Reserves, Total Number of Net Wells Drilled, Petroleum Product Sales Volume, Chemicals Revenue, Coal Production
		grouped columns	Refining Capacity and Level of Crude Runs
	MD&A	column	Net Income
		divided bar graph	Net Income - Change from 1984
		grouped columns	Exxon's Returns
	Supplemental Information	divided columns	Revenue and Costs, Taxes, Capital and Exploration Expenditures by Area, Capital and Exploration Expenditures by Function, Funds Provided, Funds Utilized, Total Short and Long-Term Debt
grouped column line/column		Return to the Shareholder from Holding Exxon Stock Dividends to Exxon Shareholders, Exxon Share Price	
1986	Narrative	grouped column	Refining Capacity and Level of Crude Runs
		divided columns	Crude Oil and Net Liquids Production, Natural Gas Liquids Reserves, Producing Capital and Exploration Expenditures, Natural Gas Production Available for Sale, Natural Gas Reserves, Total Number of Net Wells Drilled, Petroleum Product Sales Volume, Chemicals Revenue, Coal Production
	MD&A	deviated bar graph	Net Income - Major Changes from 1985
		column	Net Income
		grouped column	Exxon and Returns
	Supplemental Information	divided columns	Revenues and Costs, Taxes, Capital and Exploration Expenditures by Area, Capitalization and Exploration Expenditures by Function, Funds Provided, Funds Utilized, Total Short- and Long-Term Debt
grouped column line/column		Return to a Shareholder form Holding Exxon Stock Dividends to Exxon Shareholders, Exxon Price Share	

Key: shading indicates net loss

Continued

Table L-3. Yearly Subjects of Figures in Exxon's Annual Reports, 1985-1994 Continued

Year	Report Section	Type of Figure	Subject of Figure
1987	Narrative	divided columns	Net Liquids Production, Crude Oil and Natural Gas Liquids Reserves, Producing Capital and Exploration Expenditures, Total Number of Wells Drilled, Natural Gas Production Available for Sale, Natural Gas Reserves, Petroleum Product Sales Volume, Refining Capacity and Level of Crude Runs, Petroleum Product Sales Volumes, Chemicals Revenue, Coal Production
		grouped column	Refining Capacity and Level of Crude Runs
	MD&A	deviated bar graph	Net Income - Major Changes from 1986
	Supplemental Information	divided columns	Revenue and Costs, Taxes, Capital and Exploration Revenues, Funds Provided, Funds Utilized, Total Short- and Long-Term Debt
grouped column grouped column line/column		Earnings per Share and Net Income, Exxon's Returns Return to a Shareholder from Holding Exxon Stock Dividends to Exxon Shareholders, Exxon Share Price	
1988	Financial Highlights Narrative	line/div. column	Functional Earnings
		grouped column	Average Upstream Realizations, Refining Capacity and Level of Crude Runs
	divided columns	Net Liquids Production, Crude Oil and Natural Gas Liquids Reserves, Producing Capital and Exploration Expenditures, Total Number of Net Wells Drilled, Natural Gas Production Available for Sale, Natural Gas Reserves, Petroleum Product Sales Volume, Chemicals Revenue, Copper Production, Coal Production	
	MD&A	drawing	Tension Leg Platform
		grouped columns divided columns	Earnings per Share and Net Income, Exxon's Returns Revenue and Costs, Taxes, Total Debt, Capitalization, Capital and Exploration Expenditures by Area, Capital exploration Expenditures by Function
Supplemental Information	grouped columns line/column	Return to a Shareholder from Holding Exxon Stock Dividends to Exxon Shareholders, Exxon Share Price	

Key: shading indicates net loss

Continued

Table L-3. Yearly Subjects of Figures in Exxon's Annual Reports, 1985-1994 Continued

Year	Report Section	Type of Figure	Subject of Figure
1989	Narrative	grouped columns	Average Upstream Realization, Refining Capacity and Level of Crude Runs
		divided columns	Net Liquids Production, Crude Oil and Natural Gas Liquids Reserve, Producing Capital and Exploration Expenditures, Total Number of Net Wells Drilled, Natural Gas Production Available for Sale, Natural Gas Reserves, Petroleum Product Sales Volume, Chemical Revenue, Copper Production, Coal Production
	MD&A	grouped columns divided columns div. column/line	Earnings per Common Share and Net Income, Exxon's Returns Total Debt, Capitalization, Capital and Exploration Expenditures Functional Earnings
	Supplemental Information	grouped columns column/line	Return to a Shareholder from Holding Exxon Common Stock Dividends to Exxon Common Shareholders, Exxon Common Share Price
1990	MD&A	divided columns	Net Liquids Production, Crude Oil and Natural Gas Liquids Reserve, Petroleum Product Sales Volume, Natural Gas Production for Sale, Natural Gas Reserves, Chemicals Revenue, Coal Production, Total Debt, Capitalization, Capital and Exploration Expenditures
		grouped columns	Refinery Capacity and Level of Crude Runs, Earnings per Share and Net Income, , Exxon's Returns
	Supplemental Information	div. column/line	Functional Earnings
		grouped columns column/line	Shareholder Returns Dividends to Exxon Common Shareholders, Exxon Common Share Price
1991	Financial Highlights	column	Dividends, Year End Stock Price, Value of \$1,000 Invested in Exxon Stock
	MD&A	grouped column	Shareholder Returns
		grouped column	Exxon's Returns
		divided column divided/line col.	Capital, Exploration Expenditures Functional Earnings
1992	Financial Highlights	column	Dividends, Year End Stock Price, Value of \$1,000 Invested in Exxon
		grouped column	Shareholder returns

Key: shading indicates net loss

Continued

Table L-2. Yearly Subjects of Figures in Exxon's Annual Reports, 1985-1994 Continued

Year	Report Section	Type of Figure	Subject of Figure
	MD&A	grouped column divided column divided/line col.	Exxon's Returns Capital and Exploration Expenditures Functional Earnings
1993	Financial Highlights	column grouped column	Dividends, Year End Stock Price, Value of \$1,000 Invested in Exxon Shareholder returns
	Narrative	line graph column spot maps	Exxon Employee Safety Performance vs. Industry U.S. Releases and Transfers of SARA-313 Chemicals Exploration and Production Sites Worldwide, Refining and Marketing Sites Worldwide
	MD&A	grouped column divided column divided/line col.	Exxon's Returns Capital and Exploration Expenditures Functional Earnings
1994	Financial Highlights	column grouped column	Dividends, Year End Stock Price, Value of \$1,000 Invested in Exxon Shareholder returns
	Narrative	column line graph surface graph pie chart	Operating Incidents, U.S. Releases and Transfers of SARA-313 Chemicals, Higher Profit per Barrel, Higher Lukes Profitability, Electric Power Sales Growing in Hong Kong Lower Finding Costs, Lower Operating Costs Increasing Production of Natural Gas, Growing Sales of Clean Products Increased Capital Spending in Growth Areas Exxon Chemical Outperforms Competitors
	MD&A	grouped column divided column divided/line col.	Exxon's Returns Capital and Exploration Expenditures Functional Earnings

Key: shading indicates net loss

Table L-4. Yearly Subjects of Figures in General Electric's Annual Reports, 1985-1994

Year	Report Section	Type of Figure	Subject of Figure
1985	MD&A	column	Average Employment, Employee Productivity, Research and Development Expense as Percent of Sales, Shareowners' Equity per Share - Dec. 31, Borrowings as Percent of Total Capital Invested, Operating Margin as a Percent of Sales, Net Earnings as a Percent of Sales
		grouped dev. col.	GE/S&P 400 Annual Earning per Share Increase/Decrease Compared to 1980
		grouped column	Balance of Trade
		divided column	U.S. Exports to External Customers, Year-End Orders Backlog
		div. dev. column	Earnings Retained for Growth and Use for Dividends
		div. grouped col.	Percent of Sales Change from Previous Year
		deviated column	Comparison of Funds Flow From Operations with Funds Used for Dividend and Property, Plant and Equipment
			5-Year Net Earnings Growth Rate (19981-85) by Segment and Total Co.
1986	MD&A	dev. grouped col.	GE/S&P 400 Annual Earnings per Share Increase/Decrease Compared to 1981, Revenues and Earnings Percent Increase/Decrease from 1981
		column	Employee Productivity, Research and Development Expenses as Percent of Sales, 1986 Borrowings as Percent of Total Capital Invested, Shareowners' Equity per Share, GE Stock Price Range
		divided column	Earnings Retained for Growth and Used for Dividends, U.S. Exports to External Customers
1987	MD&A	columns	Five-Year Average and Annual Growth Rates - Operating Profit, Employee Productivity, Borrowings as a Percentage of Total Capital Invested, Shareholders' Equity per Share
		grouped column	Operating Profit and Net Earnings, Net Earnings and Revenues Percentage Increase
		divided column	Net Earnings Retained for Growth and Used for Dividends, Consolidated Employment at Year End, U.S. Exports to External Customers

Key: Shading indicates net loss

Continued

Table L-4. Yearly Subjects of Figures in General Electric's Annual Reports, 1985-1994 Continued

Year	Report Section	Type of Figure	Subject of Figure
1988	MD&A	columns	Return On Shareowners' Equity, GE Employee Productivity, Earning Assets of Financing Business, U.S. Exports to External Customers, Consolidated Total Assets
		paired columns	Consolidated Operating Profit and Net Earnings, GE/S&P 500 Annual Dividends per Share Increase Compared with 1983
		divided column	Net Earnings Retained for Growth and Used in Dividends, Consolidated Employment at Year End
1989	Financial Highlights	grouped column	Earnings Per Share, Operating Margin, Market Value, Dividends per Share, Total Cost Productivity, Average Annual Yield
	MD&A	columns	Constant Dollar Sales per GE Employee, Total Assets of GE Capital, GE's Exports from U.S. to External Customers, Dividends per Share, Consolidated Total Assets, Return on Shareowners' Equity
		deviated column	GE/S&P Earnings per Share Increase/Decrease Compared with 1984
		grouped column	Consolidated Operating Profit and Net Earnings, GE/S&P Dividends per Share Increase Compared with 1984
divided column	Total International Revenues, Consolidated Employment at Year End		
1990	MD&A	columns	Return on Shareowners' Equity, Dividends per Share, Total Assets of GE Capital, GE Exports form U.S. to External Customers, Consolidated Total Assets, GE's Borrowings as a Percent to Total Capital Invested, Research and Development Expenditures as a Percent of GE Sales

Key: Shading indicates net loss

Table L-4. Yearly Subjects of Figures in General Electric's Annual Reports, 1985-1994 Continued

Year	Report Section	Type of Figure	Subject of Figure
1990		grouped column	Consolidated Operating Profit and Net Earnings, GE/S&P Dividends per Share Increase Compared with 1985
		divided column	Total International Revenues
1991	Financial Highlights MD&A	column	Consolidated Revenues, Dividends per Share, GEFS Revenues
		column	Consolidated Total Assets, GE's Property, Plant, and Equipment Expenditures, Total Assets of GE Capital
		paired column	Earnings Per Share, Consolidated Earnings, GE/S&P Dividends per Share Increased Compared with 1986
		divided column	GE's REvenues, GE's International Revenues, Consolidated Employment at Year End
1992	Financial Highlights MD&A	column	Dividends Per Share, GECS' Revenues, Consolidated Total Assets
		column	Total Assets of GECS, GE Borrowings as a Percent of Total Capital Invested
		divided column	Consolidated Employment of Cont. Operations at Year End, GE's Revenues from Cont. Operations, GE's International Revenues from Cont. Operations, Earnings Before Accounting Change, Revenues, Earnings per Share Before Accounting Changes
		grouped column	GE/S&P Dividends per Share Increase Compared with 1987

Key: Shading indicates net loss

Continued

Table L-4. Yearly Subjects of Figures in General Electric's Annual Reports, 1985-1994 Continued

Year	Report Section	Type of Figure	Subject of Figure
1993	Financial Highlights	column	Revenues, Earnings/Share Before Accounting Changes, Dividends per Share
		column	GECS's Revenues, Consolidated Total Assets, GE Borrowings as a Percent of Total Capital Invested, Total Assets of GECS
	divided column	Earnings Before Accounting Changes, Consolidated Revenues, Consolidated International Revenues, Consolidated Employment of Cont. Operations at Year End	
	grouped column	GE/S&P Dividends per Share Increase Compared with 1988	
1994	MD&A	columns	Revenues from Cont. Operations, Earnings per Share from Cont. Operations Before Accounting Changes, Dividends per Share, GECS Revenues from Cont. Operations, Consolidated Assets - Cont. Operations, Inventory Annual Turnover, GE Borrowings as a Percent of Total Capital Invested
		grouped column	GE/S&P Dividends per Share Increase Compared with 1989
		divided column	Consolidated Revenues from Cont. Operations, Consolidated International Revenues from Cont. Operations, Consolidated Employment at Year End - Cont. Operations

Key: Shading indicates net loss

Table L-5. Yearly Subjects of Figures in General Motors' Annual Reports, 1985-1994

Year	Report Section	Type of Figure	Subject of Figure
1985	Financial Highlight	pie	What Happened to the Revenue GM Received in 1985?
1986	Financial Highlights	pie	What Happened to the Revenue GM Received During 1986?
1987	MD&A	columns	Net Income, Sales, and Revenues, Average Price Increases, GMAC Net Income, Funds Provided by Operations, Capital Expenditures, Long-Term Debt
		pie	What Happened to the Revenue GM Received During 1987?
1988	Narrative	pictogram	Bumper to Bumper Warranty - Wording in Shape of Car with 2 Tires
		drawing	New Generation of Engines
		line drawing	New Futuristic Designs
1989	Narrative	surface graph	Sales and revenues
		pictogram	Cash and Marketable Securities
		deviated column	Earnings per Share
		columns	Cash Dividends, Stockholders' Equity
		drawings	Full Color - Freight Locomotives, New Jet Prop
1990	Narrative	drawings	New Technology - Full Frontal Air Bag System, Electronic Auto. Transmission, Speed Sensitive Suspension, Northstar 4.6 Liter Engine, Head-up Display, Anti-lock Brake System, Traction Control System
1991			
1992	Letter Narrative	drawing	CEO
		drawings	7 Leaders at GM
		columns	U.S. Retail and U.S. Fleet, Opel/Vauxhall Sales in Western Europe
		charts	Passenger Car Reorganization, Idea Flow Among Creativity Teams, Vehicle Ranch Center
Key: Shading indicates net loss		deviated column	Retirement Incentive Programs

Continued

Table L-5. Yearly Subjects of Figures in General Motors' Annual Reports, 1985-1994 Continued

Year	Report Section	Type of Figure	Subject of Figure
1993	Narrative	logos	Logos for Each Auto Division
		columns	Total Net Sales and Revenues, Gross Margin
	MD&A	deviated column	Profit (Loss) Margin
		line graph	Worldwide Cash and Marketable Securities vs. Debt Balance
1994	Financial Highlights	divided column	Delphi Sales
	Narrative	drawing	Parts Supplied by Delphi
		columns	Total Net Sales and Revenues, Gross Margin
	MD&A	line graph	Worldwide Cash and Marketable Securities vs. Debt Balances
		deviated column	Profit (Loss) Margin

Key: Shading indicates net loss

Table L-6. Yearly Subjects of Figures in IBM's Annual Reports, 1985-1994

Year	Report Section	Type of Figure	Subject of Figure
1985	Financial Highlights	column	Gross Income
	MD&A	grouped column divided column grouped column	Net Earnings/Dividends IBM Consolidated Gross Income Investments (Additions) in Plant and Other Property, Six Major Countries - Combined Gross Income by Year Summary of Sources of Funds, Summary of Use of Funds Percent Change in Value of Foreign Currencies Compared to U.s. \$ - British Pound, Canadian Dollar, French Franc, German Mark, Italian Lira, Japanese Yen
1986	Financial Highlights	column	Gross Income
	MD&A	grouped column pie chart grouped column divided column column	Net Earnings/Dividends Summary of Sources of Funds, Summary of Use of Funds Investments (Additions) in Plant and Other Property, Gross Income Research, Development and Engineering Expenses
1987	Financial Highlights	column	Gross Income
	MD&A	grouped column pie chart grouped column divided column column	Net Earnings/Dividends Summary of Sources of Funds, Summary of Use of Funds Investments (Additions) in Plant and Other Property, Gross Income Research, Development and Engineering Expenses
1988	Financial Highlights	column	Revenue, Earnings per Share
	Narrative	grouped column map	Net Earnings/Dividends IBM Around the World

Key: Shading indicates net loss

Continued

Table L-6. Yearly Subjects of Figures in IBM's Annual Reports, 1985-1994 Continued

Year	Report Section	Type of Figure	Subject of Figure
1988	MD&A	column grouped column divided column pie chart	Research, Development and Engineering Expenses Investment in Plant and Other Property Revenue (By Operation) Summary of Cash Inflows, Summary of Cash Outflows
1989	Financial Highlights MD&A	column grouped column column grouped column divided column	Revenue, Earnings per Share Net Earnings/Dividends Research, Development and Engineering Expenses Investment in Plant and Other Property Revenue, Revenue by Geographic Areas
1990	Financial Highlights Narrative MD&A	column grouped column drawing divided column column grouped column	Revenue, Earnings per Share Net Earnings/Dividends Graduation Hat, House, Gas Pump, Mayan Pyramids, European National Flags, Pipe Wrench, Person Using Home Computer, Portable Devices, Shakespeare Picture, Multimedia Film, Auto, Touch and Clean, Credit Card, Desktop System, Globe with Envelopes Around, Lab Beaker, Fingerprint, Integrated Computer System Revenue, Revenue by Geographic Areas Research, Development and Engineering Expenses Investment in Plant and Other Property
1991	Financial Highlights MD&A	column dev. grouped col. deviated column divided column column	Revenue Dividends and Net Earnings Earnings per Share Revenue by Segment, Revenue by Geographic Area Research, Development and Engineering Expenses

Key: Shading indicates net loss

Continued

Table L-6. Yearly Subjects of Figures in IBM's Annual Reports, 1985-1994 Continued

Year	Report Section	Type of Figure	Subject of Figure
1992	Financial Highlights	column	Revenue
		deviated column	Earnings per Share
		dev. grouped col.	Dividends and Net Earnings
	Narrative	maps	IBM Latin and North America, IBM Asia Pacific and Europe
1993	MD&A	divided column	Revenue, Employees Regular, Full Time
	Letter	columns	Worldwide Work Force, Revenue Per Employee, Revenue
	Narrative	divided column	Expenses
1994	Letter	line drawings	Distributed Network Concept, Microprocessors Performing Greater Tasks, Recycleable Software Building Blocks, Cultivating World Markets
		deviated columns	Net Earnings
		columns	Revenue, Total Expenses, Cash and Marketable Securities

Key: Shading indicates net loss

Table L-6. Yearly Subjects of Figures in IBM's Annual Reports, 1985-1994

Year	Report Section	Type of Figure	Subject of Figure
1985	Financial Highlights	column	Gross Income
		grouped column	Net Earnings/Dividends
	MD&A	divided column	IBM Consolidated Gross Income
		grouped column	Investments (Additions) in Plant and Other Property, Six Major Countries - Combined Gross Income by Year
		pie chart	Summary of Sources of Funds, Summary of Use of Funds
		column	Percent Change in Value of Foreign Currencies Compared to U.S. \$ - British Pound, Canadian Dollar, French Franc, German Mark, Italian Lira, Japanese Yen
1986	Financial Highlights	column	Gross Income
		grouped column	Net Earnings/Dividends
	MD&A	pie chart	Summary of Sources of Funds, Summary of Use of Funds
		grouped column	Investments (Additions) in Plant and Other Property,
		divided column	Gross Income
	column	Research, Development and Engineering Expenses	
1987	Financial Highlights	column	Gross Income
		grouped column	Net Earnings/Dividends
	MD&A	pie chart	Summary of Sources of Funds, Summary of Use of Funds
		grouped column	Investments (Additions) in Plant and Other Property,
		divided column	Gross Income
		column	Research, Development and Engineering Expenses
1988	Financial Highlights	column	Revenue, Earnings per Share
		grouped column	Net Earnings/Dividends
	Narrative	map	IBM Around the World

Key: Shading indicates net loss

Continued

Table L-7. Yearly Subjects of Figures in International Paper's Annual Reports, 1985-1994

Year	Report Section	Type of Figure	Subject of Figure
1985	Financial Highlights	columns line graph	Total Debt as a Percentage of Total Capital Domestic Paper Industry Price Index, Work Hours, Primary Mills, Non-Exempt Employees, Fiber and Fuel Costs, Primary Mills Exempt Employees
	Narrative MD&A	divided columns divided column divided bar	Capital Spending - 6 Years, Capitalization - 5 Years Total Taxes - 5 Years Percent of Sales Breakdown
1986	Narrative MD&A	pie column graphs divided columns	Percent of Sales by Products Total Debt as a Percentage of Total Capital - 5 Years Total Taxes - 5 Years, Annual Capital Spending - 5 Years
1987	Narrative	map pie drawing column graphs divided columns	Global Placement of Facilities Percent of Each Product to Total Sales Customers Using Products, Facilities (Mill) Annual Capital Spending, Total Debt as Percentage of Total Capital Annual Capital Spending
1988	Narrative	drawings	Loading Printing Paper, Reading Computer Printout, Newspaper Machine, Exported Market Pulp, Containerboard Mill, Various Juice Cartons on the Shelf, Woman at Cosmetic Counter, Child Eating Oatmeal, Inventory of Paper Products, Tree Seedlings, Entrance Doors, Reading Photographic Commercial Film
	MD&A	columns	Net Sales, Operating Profit Pulp and Paper, Operating Profit Paperboard and Packaging, Operating Profit Distribution Business, Operating Profit Wood Products and Timber, Operating Profit Specialty Products, Cash Flow from Operations, Debt to Total Capitalization
1989	Financial Highlights	bar graphs	Export Sales, Capital Expenditures, Specialty Product Sales over 5 Years
	Narrative	map pie	Shipping Areas, Export Areas, Manufacturing Areas Percent of Sales of Different Divisions

Key: shading indicates net loss

Continued

Table L-7. Subjects of Figures in International Paper's Annual Reports, 1985-1994 Continued

Year	Report Section	Type of Figure	Subject of Figure
1989	MD&A	bar graphs	Net Sales, Operating Profit from Pulp and Paper, Operating Profit from Paperboard and Packaging, Operating Profit from Distribution Businesses, Operating Profit from Specialty Products, Operating Profit from Wood Products and Timber, Cash Flow from Operations Over 3 Years
1990	Financial Highlights	column graph divided column	Net Sales Net Earnings, Net Earnings per Share, Return on Equity
	Narrative	map	Business Segments in 24 Countries, States in Which IP Controls Timberlands
	MD&A	grouped column pie	Laser Paper Brand Preference 1990 Capital spending
		column graphs pie	Specialty Product Sales Percent of Sales by Individual Segment, Individual Segment Percent of Sales
		columns	Net Sales, Operating Profit by Segments: Pulp and Paper, Paperboard and Packaging, Distributions Businesses, Specialty Products, Wood and Timber Products, Cash Flow from Operations
1991	Financial Highlights	column graphs	Net Sales and Cash Flow From Operations
	Narrative	pie	Percent of Sales by Divisions
	MD&A	divided columns	Net Earnings, Net Earning per Share, Return on Operating Profit for Divisions
1992	Financial Highlights	column graphs	Net Sales, Cash Flow from Operations Total Debt to Capital Ratio - 5 Years, Net Sales - 3 Years, Cash Flow from Operations - 3 Years
	Narrative	pie	Percent of Sales by Division
	MD&A	divided column	Net Earnings, Earnings per Share, Return on Equity - 5 Years, Operating Profit by Division for 3 Years - Packaging, Distribution, Specialty Products, Forestry Products
			deviation column

Key: shading indicates net loss

Continued

Table L-7. Yearly Subjects of Figures in International Paper's Annual Reports, 1985-1994 Continued

Year	Report Section	Type of Figure	Subject of Figure
1993	Financial Highlight	columns	Net Sales
		divided columns	Net Earnings, Earnings per Share
	Narrative	deviated columns	Printing Papers Operating Profit
		divided columns	Net Sales, Packaging Net Sales, Packaging Operating Profit, Distribution Net Sales, Distribution Operating Profit, Specialty Products Net Sales, Specialty Products Operating Profit, Forest Products Net Sales, Forest Products Operating Profit
		pie	Printing Paper Results, Packaging Results, Distribution Results, Specialty Product Results, Forest Products Research
	MD&A	columns	Net Sales, Cash Flow from Operations, Total Debt to Capitalization
		divided columns	Return on Equity
1994	Financial Highlights	columns	Net Sales
		divided columns	Net Earnings, Earnings per Share, Return on Equity
	MD&A	columns	Net Sales, Cash Flow from Operations, Total Debt to Capitalization
		divided columns	Net Sales of Printing Papers, Net Sales of Packaging, Operating Profit of Packaging, Distribution of Net Sales, Distribution of Operating Profit, Specialty Products Net Sales, Specialty Operating Profit, Forest Product Net Sales, Forest Product Operating Profit
		line drawing	Aseptic Packaging Machine
	map	Locations in France and The Netherlands	

Key: shading indicates net loss

Table L-8. Yearly Subjects of Figures in Kodak's Annual Reports, 1985-1994

Year	Report Section	Type of Figure	Subject of Figure
1985	Narrative	column graphs	Sales by Photographic and Information Management Division, Sales by Chemical Division, Research & Development Expenditures
	MD&A	divided columns columns	Net Earnings per Share, Sales to Customers Inside/Outside U.S., Percent Return on Average Shareholder's Equity Weighted Values of European Currencies vs. U.S. Dollar, Cash Dividends per Share, Working Capital, Capital Additions
1986	MD&A	bar graphs	Weighted Values of European Currencies vs. U.S. Dollar, Cash Dividends per Share, Working Capital, Capital Additions
		divided bar graphs	Net Earnings per Share, Sales to Customers Inside/Outside U.S., Percent Return on Average Shareholder's Equity
1987	MD&A	divided columns	Net Earnings per Share, Sales to Customers Inside/Outside U.S., Percent Return on Average Shareholder's Equity
		columns	Weighted Values of European Currencies vs. U.S. Dollar, Cash Dividends per Share, Working Capital, Capital Additions, Cash Dividends per Share
1988	MD&A	columns	Weighted Values of European Currencies vs. U.S. Dollar Working Capital, Capital Addition, Cash Dividends per Share
		divided columns	Net Earnings per Share, Sales to Customers Inside/Outside the U.S., Percent Return on Average Shareholder's Equity
1989	Narrative MD&A	line drawing	Business Sectors with Shares Vital Links
		columns divided columns	Net Earnings per Share, Weighted Values of European Currencies vs. U.S. Dollar, Working, Capital, Capital Additions, Cash Dividends per Share Sales to Customers Inside/Outside the U.S., Percent Return on Average Shareowner's Equity

Key: shading indicates net loss

Continued

Table L-8. Yearly Subjects of Figures in Kodak's Annual Reports, 1985-1994 Continued

Year	Report Section	Type of Figure	Subject of Figure
1990	MD&A	columns divided columns	Net Earnings per Share, Capital Additions, Cash Dividends per Share, Working Capital Sales to Customers Inside/Outside the U.S., Percent Return on Average Shareholder's Equity
1991	MD&A	bar graphs divided bar graph	Net Earnings per Share, Working Capital, Capital Additions Percent Return on Average Shareowner's Equity
1992	MD&A	columns divided columns	Primary Earnings per Share, Working Capital, Capital Percent Return on Average Shareowner's Equity
1993	MD&A	surface graph map spot map	Single-Use Camera Industry 100+ Million Units Sold Worldwide in 1993 - Office Imaging Turnaround: Contributing to Company Earnings and Cash Flow Locations of Sterling Health Products Worldwide Manufacturing, Research and Development, Sterling Winthrop, L&F Products, and Marketing Locations
1994	MD&A	pie graph columns	Recycling of One-Time Use Cameras Sales of One-Time Use Camera, CD-Rom Drive Sales Growth, Increase in Computer Performance

Key: shading indicates net loss

Table L-9. Yearly Subjects of Figures in Philip Morris' Annual Reports, 1985-1994

Year	Report Section	Type of Figure	Subject of Figure
1985	Letter	surface graphs	Operating Revenues, Operating Income, Net Earnings, Earnings per Share, Dividends Declared per Share, Phillip Morris Incorporated Operating Revenues, Phillip Morris Incorporated Operating Income, General Foods Corporation Operating Revenues, General Foods Corporation Operating Income
		surface & line	World Cigarette Industry Unit Sales and Phillip Morris Shares, U.S. Cigarette Industry Unit Sales and Phillip Morris Share, U.S. Beer Industry Barrel Shipments and Miller Share
	Narrative	surface & line	Total Assets with Net Return, Stockholders' Equity with Net Average Return, Total Debt with Ratio of Total Debt to Stockholders' Equity, Interest Expense with Interest Coverage
1986	Letter	column graphs divided columns	Earnings per Share, Net Earnings, Dividends Declared per Share Operating Revenues by Product Line, Operating Income by Product Line
	Narrative	column graphs	General Foods Corporation Operating Revenues, General Foods Corporation Operating Income
		line/column	General Foods Corporation Operating Revenues, General Foods Corporation Operating Income
MD&A	line/column	Stockholders' Equity with Net Return on Average Stockholders' Equity, Total Assets with Net Return on Average Total Assets, Total Debt with Ratio of Total Debt to Stockholders' Equity, Interest Expense with Interest Coverage	
1987	Letter	columns divided columns	Net Earnings, Dividends Declared per Share Operating Revenues by Product Line, Income from Operations by Product Line, Funds from Operations and Earnings per Share
		Narrative	columns
		line/column	U.S. Cigarette Industry with Phillip Morris Share, World Cigarette Industry with Phillip Morris Share, U.S. Beer Industry Barrel Shipments with Miller Share

Key: shading indicates net loss

Continued

Table L-9. Yearly Subjects of Figures in Philip Morris' Annual Reports, 1985-1994 Continued

Year	Report Section	Type of Figure	Subject of Figure
1987	MD&A	line/column	Stockholders' Equity with Net Return on Average Stockholder's Equity, Total Assets with Net Return on Average total Assets, Total Debt with Ratio of Total Debt to Stockholders' Equity, Interest Expense with Interest Coverage
1988	Letter	columns	Net Earnings, Dividends per Share
		divided columns	Cash Flow per Share from Operating Activities and Net Earnings per Share, Operating revenues by Division, Operating Companies Income
	Narrative	pie graphs	Operating Revenues - Tobacco, Domestic and International to all Revenue, Operating Revenues - Food, Operating Revenues - Miller and Financial Services and Real Estate
		surface graphs	Phillip Morris USA Retail Shelf Space, Phillip Morris U.S. Cigarette Export Vol., Annual Consumption of Turkey per Capita
		line/column	U.S. Cigarette Industry Unit Sales with Phillip Morris Share, World Cigarette Industry Unit Sales with Phillip Morris Share, U.S. Beer Industry Barrel Shipments with Miller Share
	MD&A	columns	Ratio of Earnings to Fixed Charges
divided columns		Total Debt to Consumer Products Debt, Ratio of Total Debt to Stockholders' Equity and Ratio of Consumer Products Debt to Stockholders' Equity	
		line/column	Stockholders' Equity and Return on Average Stockholder's Equity
1989	Letter	columns	Net Earnings, Dividends per Share
		divided columns	Operating Revenues, Operating Companies' Income, Cash Flow from Operating Activities and Net Earnings per Share

Key: shading indicates net loss

Continued

Table L-9. Yearly Subjects of Figures in Philip Morris' Annual Reports, 1985-1994 Continued

Year	Report Section	Type of Figure	Subject of Figure
1989	Narrative	pie graphs	Operating Revenues - Tobacco, Operating Revenues - Food, Operating Revenues - Beer
		line/column	U.S. Cigarette Industry Unit Sales, World Cigarette Industry Sales, U.S. Beer Industry Barrel Shipments
		surface graphs	Phillip Morris USA Share of Total Retail Cigarette Inventory, Phillip Morris U.S. Cigarette Industry Export Volume, Total U.S. Cheese Consumption
	MD&A	columns	Kraft General Foods Inc. Volume
		divided columns	Ratio of Earnings to Fixed Charges Total debt and Consumer Product Debt, Total Debt and Product Debt to Stockholders' Equity
1990	Letter	column graph	Net Earnings, Dividends Declared per Share
		divided column	Operating Revenues by Division, Operating Companies' Income by Division, Cash Flow from Operations and Net Earnings per Share
	Narrative	pie graphs	Operating Revenues by Tobacco, Food, Beer and Financial Services and Real Estate, Phillip Morris International Operating Revenues by Geographic Region
		surface graph	Phillip Morris U.s. Cigarette Export Volume
		column	Kraft General Foods Inc. Volume
line/column	U.S. Cigarette Industry Unit Sales and Phillip Morris Share, World Cigarette Industry Unit Sales and Phillip Morris Share, U.S. Malt Beverage Industry Barrel Shipments and Phillip Morris Share		

Key: shading indicates net loss

Continued

Table L-9. Yearly Subjects of Figures in Philip Morris' Annual Reports, 1985-1994 Continued

Year	Report Section	Type of Figure	Subject of Figure
1990	MD&A	line/columns divided column	Stockholders' Equity and Return on Average Stockholder's Equity Total Debt and Consumer Product Debt, Ratio of Total Debt to Stockholders' Equity and Ratio of Consumer Products Debt to Stockholders' Equity
1991	Financial Highlights	bar graph divided bar graphs	Earnings Before Cumulative Effect of Accounting Change, Dividends Declared per Share Operating Revenues by Segment, Operating Companies' Income by Segment, Cash Flow per Share from Operating Activities, Earnings per Share Before Cumulative Effect of Accounting Change
	Narrative	surface graph line/column	Phillip Morris U.S. Cigarette Export Volume U.S. Cigarette Industry Unit Sales with Phillip Morris Share, World Cigarette Industry Unit Sales with Phillip Morris Share, U.S. Malt Beverage Industry Barrel Shipments and Miller Share
	MD&A	columns divided columns	Total Return to Stockholders Ratio of Total Debt to Stockholders' Equity and Ratio of Consumer Products Debt to Stockholders' Equity, Total Debt and Consumer Products Debt
1992	Financial Highlights	bar graph divided bar graph	Earnings per Share for Cumulative Effect of Accounting Change Operating Revenues by Segment, Operating Companies' Income by Segment

Key: shading indicates net loss

Continued

Table L-9. Yearly Subjects of Figures in Philip Morris' Annual Reports, 1985-1994 Continued

Year	Report Section	Type of Figure	Subject of Figure
1992	Narrative	pie graph	U.S. vs. Worldwide Employees, U.S. as Percent of World Population, N. American Food 1992 Retail Operating Revenues by Category, International Food 1992 Operating Revenues by Country, Phillip Morris Companies, Inc. 1992 Contributions and Matching Gifts to Organizations
		surface graph	Phillip Morris U.S. Cigarette Export Volume
		divided column	Phillip Morris Companies, Inc. Productivity per Employee, U.S. Cigarette Industry Income Growth, International Food 1992 Operating Revenues by Category
		columns	Kraft Cheese Market Share Recovery
		column/line	World Cigarette Industry Unit Sales with Phillip Morris Share
1993	Financial Highlights	divided bar graphs	Operating Revenues by Business Segment, Operating Companies' Income by Business Segment
	Letter	surface graph	Improving Market Shares
		grouped column	Narrowing Price Gap
1994	Financial Highlights	div. grouped col. pie graphs	Operating Companies' Income Operating Companies' Income by Segment 1994, 1990, Operating Revenues 1994, 1990

Key: shading indicates net loss

Continued

Table L-9. Yearly Subjects of Figures in Philip Morris' Annual Reports, 1985-1994 Continued

Year	Report Section	Type of Figure	Subject of Figure
1994	Letter	pie graph	1990-94 Cumulative Consolidated Operating Cash Flow
		column	Cumulative Consolidated Operating Cash Flow Since 1990
	Narrative	surface graphs	Total Phillip Morris U.S. Retail Market Share, Operating Income Volume in Central and Eastern Europe
		pie graphs	Categories in which We are #1 or #2 (Food), Total 1994 Operating Income, 80% of Our U.S. Shipments are Premium Priced Beers
		columns	Discount Category Retail Market Share, Average Annual Volume Growth Outside U.S., 1989-94, Operating Income, Percentage of Miller's Operating Income Outside the 50 States
		bar graph	Phillip Morris Market Share (International Tobacco)
		grouped columns	Sales of Food Service Businesses, Purchases of Food Businesses

Key: shading indicates net loss

Table L-10. Yearly Subjects of Figures in Tenneco's Annual Reports, 1985-1994

Year	Report Section	Type of Figure	Subject of Figure
1985	Letter Narrative	pie graphs grouped column map	Capital Expenditures, Average Net Assets Employed Domestic Cost of NEB Added, Percent of Production Replaced Natural Gas Properties Acquisition in Louisiana Components
1986	Letter Narrative	pie graphs grouped column	Capital Expenditures, Average Net Assets Employed Domestic Cost of NEB Added, Percent of Production Replaced
1987	Letter Narrative	pie graphs grouped column	Capital Expenditures, Average Net Assets Employed Domestic Cost of NEB Added, Percent of Production Replaced
1988	MD&A	column paired dev. col.	Operating Income for Each Division Operating Income for Farm and Construction Equipment - Before and After Consolidation
1989	Financial Highlights Narrative	divided column column	Net Sales and Operating Revenues and Operating Income Operating Income by Division with Deviation Showing Negative in Farm and Construction Equipment Division
1990	Financial Highlights Narrative	divided column pie graphs	Net Sales and Operating Revenues and Operating Income, Return on Average Stockholder's Equity Percent of Consolidated Revenues by Business Segment, Percent of Consolidated Operating Income by Business Segment
1991	Financial Highlights	pie graphs	Net Sales and Operating Revenues, Total Assets
1992	Letter	column grouped column line graph	Earnings per Share, Operating Income, Operating Cash Flow, Headcount, Industrial Debt Operating Income by Divisions, Division Cash Flow Stock Price

Key: shading indicates net loss

Continued

Table L-10. Yearly Subjects of Figures in Tenneco's Annual Reports, 1985-1994 Continued

Year	Report Section	Type of Figure	Subject of Figure
1992	Narrative	pie graphs column deviated column drawing	Percent of Total Revenues by Division with Percentages Given Operating Income for Relevant Division Operating Loss for Relevant Division Hitting Target, Key to Empowerment, Nailing Down Costs, Global Sites, Matrix Management System, Teamwork, Communication Focusing on Details
1993	Financial Highlights Narrative	pie graphs column deviated column map surface graph	Divisions Percent of Total Revenue Operating Income, Cost of Quality, Gas Volumes Operating Cash Flow, Industrial Debt-to-Capitalization Ratio and Consolidated Debt to Capitalization Ratio Earnings per Share, Operating INcome for Farm and Construction Equipment Natural Gas Pipelines, Supply Areas, and Major Markets Silver Dollar Pic Showing Total Revenues and Cost of Quality; Combo Column and Surface Graph Showing Common Stock Prices Compared to Dow Jones and S&P 500
1994	Financial Highlights Narrative	pie graphs column deviated column column drawings map	Percent of Total Revenue, Percent of Total Oeprating Income Paired by Division Consolidated Debt-to-Capitalization Rati, Total Debt Earnings per Share, Operating Income Primary Growth Platforms, Combined Operating Income, Consolidated Capital Expenditures Automotive, Ship, New Ship Construction/Repair Facility Layout, Basket Balls, Packaging, Divison Head Sketches Tenneco Gas

Key: shading indicates net loss

**APPENDIX M: TABLES 1-10. COLORS USED IN ANNUAL REPORT
FIGURES BY COMPANY, YEAR, AND
ANNUAL REPORT SECTION**

Table M-1. Yearly Colors used in Graphics in Alcoa's Annual Reports, 1985-1994

	Financial Highlights	Letter to Stockholders	Narrative/Scope of Operations	Managements' Discussion and Analysis	Board of Directors	Supplemental Data
1985	blue, purple, fuchsia, red, orange, goldenrod, chartreuse, seafoam, green, taupe, pale blue, med. blue, med. green	blue, purple, fuchsia, red, orange, goldenrod, chartreuse, seafoam full color photos	blue, purple, fuchsia, red, orange, goldenrod, chartreuse, seafoam, rust, lt. blue, med. green, lt. moss green, dk. chartreuse full color photos	-	-	-
1986	blue, purple, fuchsia, red, orange, goldenrod, chartreuse, seafoam, green, tapue, pale blue, white	blue, purple, fuchsia, red, orange, goldenrod, chartreuse, seafoam, white full color photos	blue, purple, fuchsia, red, orange, goldenrod, chartreuse, seafoam, rust, lt. blue, med. green, lt. moss green, dark chartreuse, wine, bronze, beige, white full color photos	blue, purple, fuchsia, red, orange, goldenrod, chartreuse, seafoam, white, taupe, green, pale blue	-	-
1987	-	full color photos	full color photos	-	-	-

Key: shading indicates net loss

Continued

Table M-1. Yearly Colors used in Graphics in Alcoa's Annual Reports, 1985-1994 Continued

	Financial Highlights	Letter to Stockholders	Narrative/Scope of Operations	Managements' Discussion and Analysis	Board of Directors	Supplemental Data
1988	full color photos	full color photos	full color photos	-	-	-
1989	-	-	-	full color photos	-	-
1990	full color photos	med. blue, purple, bronze, rust, green full color photos	rust, black, med. blue, bronze, white, purple, steel blue, wine, red purple, teal, sky blue, brown, orange full color photos	bronze, gray, red, lt. blue, wine, yellow, lime green teal, med. blue, gold, lt. lime green olive, purple full color photos	-	-
1991	-	full color photos	full color photos	full color photos	-	-
1992	-	full color photos	full color photos	-	-	-
1993	red, black, gray	black/white photo	black/white photos	red, black, beige, white	-	red, beige, black, white
1994	-	full color photos black/white photos	full color photos	-	-	-

Key: shading indicates net loss

Table M-2. Yearly Colors used in Graphics in DuPont's Annual Reports, 1985-1994

	Financial Highlights	Letter to Stockholders	Narrative/Scope of Operations	Managements' Discussion and Analysis	Board of Directors	Supplemental Data
1985	gray, white, rust	full color photos	pale gray, black, white full color photos	blue, rust, gray, taupe	-	-
1986	-	full color photos	steel blue, black, white full color photos	moss green, lt. blue, lt. taupe, lt. lavender, beige	-	-
1987	-	full color photos	gray, beige, blue, rose full color photos	blue, lt. blue, taupe, gray, beige, rose, green, mauve, med. blue, bronze, teal	-	-
1988	-	full color photos	pastel green, pink, blue, orange, yellow full color photos	pastel pink, gray, pastel green, pastel blue, orange	-	-
1989	baby blue, pink, yellow, olive	full color photos	orange, blue, red full color photos	orange, blue, green, red, gray, purple	-	-

Key: shading indicates net loss

Continued

Table M-2. Yearly Colors used in Graphics in DuPont's Annual Reports, 1985-1994 Continued

	Financial Highlights	Letter to Stockholders	Narrative/Scope of Operations	Managements' Discussion and Analysis	Board of Directors	Supplemental Data
1990	blue, wine purple, orange	full color photos	goldenrod wine, burgandy, green, blue teal, forest green, blue full color photos	-	-	
1991	-	full color photos	red, lavender, orange, mint green, blue, yellow, orange/yellow, purple/lavender, baby blue full color photos	baby blue, mint green, rose	-	-
1992	red, black, slate blue, beige	full color photos	lt. blue, black full color photos	lt. blue, antique gold, black	-	-
1993	black, white, yellow	full color photos	chartreuse, dark blue, black full color photos	dark blue, green, black, white	-	-
1994	-	pale green, black, orange. lt orange full color photos	pale green, orange sherbert, orange, black, cream full color photos	-	-	-

Key: shading indicates net loss

Table M-3. Yearly Colors used in Graphics in Exxon's Annual Reports, 1985-1994

	Financial Highlights	Letter to Stockholders	Narrative/Scope of Operations	Managements' Discussion and Analysis	Board of Directors	Supplemental Data
1985	full color photos	full color photos	lt blue, tan, taupe, moss green full color photos	lt blue, taupe, tan, moss green	-	-
1986	full color photos	full color photos	red, blue, bronze, rust, lt blue full color photos	med. blue, wine, rust, bronze, burgandy	-	-
1987	full color photos	full color photos	full color photos	teal, brown, green, taupe, rust	-	teal, black
1988	fuschia, green, orange, steel blue, black	full color photos	teal, goldenrod, green, fuschia, rust, black full color photos	teal, goldenrod, fuschia, green, red	-	-
1989	full color photos	full color photos	green, orange, peach, lt moss green, peach, lt teal green, lavender, red, teal full color photos	teal, peach, green, lavender, black	-	-

Key: shading indicates net loss

Continued

Table M-3. Yearly Colors used in Graphics in Exxon's Annual Reports, 1985-1994 Continued

	Financial Highlights	Letter to Stockholders	Narrative/Scope of Operations	Managements' Discussion and Analysis	Board of Directors	Supplemental Data
1990	full color photos	full color photos	full color photos	med. blue, tan, green, rust, black, white, gray, lt blue, orange	-	med. blue, dove gray, black
1991	teal, rust	full color photos	full color photos	teal, taupe, tan, green, rust	-	-
1992	slate blue, med. brown, gray	full color photos	full color photos	rust, gray, green, tan, dove gray, black	-	-
1993	blue, red	full color photos	blue, red, gray, orange, gold, green full color photos	gray, brown, tan, green, black	-	-
1994	red, blue	full color photos	green, red, blue, orange, purple, black full color photos	red, blue, green, purple, gold, black	-	-

Key: shading indicates net loss

Table M-4. Yearly Colors used in Graphics in General Electric's Annual Reports, 1985-1994

	Financial Highlights	Letter to Stockholders	Narrative/Scope of Operations	Managements' Discussion and Analysis	Board of Directors	Supplemental Data
1985	-	full color photos	full color photos	teal, orange, blue, red, green, wine, gray, hunter green, mauve, lt wine, lt blue	-	-
1986	full color photos	full color photos	gold, orange, red, purple, blue, lime green full color photos	blue, gold, green, red	full color photos	-
1987	full color photos	full color photos	full color photos	red, yellow, teal, burgandy, wine, green, royal blue, lt blue, blue	full color photos	-
1988	-	full color photos	full color photos	blue, red, teal, goldenrod, green, orange/red, purple, gray, beige	full color photos	-

Key: shading indicates net loss

Continued

Table M-4. Yearly Colors used in Graphics in General Electric's Annual Reports, 1985-1994 Continued

	Financial Highlights	Letter to Stockholders	Narrative/Scope of Operations	Managements' Discussion and Analysis	Board of Directors	Supplemental Data
1989	full color photos	full color photos	full color photos	royal blue, gold, green, purple, red, blue, hunter blue, wine	-	-
1990	-	full color photos	full color photos	green, blue, gold, wine, navy	full color photos	-
1991	-	full color photos	bronze, blue, green, wine, teal, slate blue, beige full color photos	bronze, blue, green, wine, teal, slate blue, beige	full color photos	-
1992	-	full color photos	orange, lt orange, blue, lt blue, forest green, purple, lavender, gray full color photos	orange, lt orange, blue, lt blue, forest green, purple, lavender, gray	full color photos	-

Key: shading indicates net loss

Continued

Table M-4. Yearly Colors used in Graphics in General Electric's Annual Reports, 1985-1994 Continued

	Financial Highlights	Letter to Stockholders	Narrative/Scope of Operations	Managements' Discussion and Analysis	Board of Directors	Supplemental Data
1993	-	full color photos	blue, teal, wine, seafoam, lt blue, goldenrod, purple full color photos	blue, teal, wine, seafoam, lt blue, goldenrod, purple	full color photos	-
1994	-	full color photos	full color photos	purple, forest, blue green, yellow, gold, wine, lt. blue	full color photos	-

Key: shading indicates net loss

Table M-5. Yearly Colors used in Graphics in General Motors' Annual Reports, 1985-1994

	Financial Highlights	Letter to Stockholders	Narrative/Scope of Operations	Managements' Discussion and Analysis	Board of Directors	Supplemental Data
1985	beige, black, white	full color photos	full color photos	full color photos	full color photos	-
1986	beige	full color photos	full color photos	full color photos	-	-
1987	-	full color photos	full color photos	black, white, blue	full color photos	-
1988	-	full color photos	full color photos	-	full color photos	-
1989	-	full color photos	teal, gray, black, white, gold, teal full color photos	-	full color photos	-
1990	-	-	full color photos	blue, black	-	-
1991	-	full color photos	full color photos	blue, black	-	-
1992	-	black, slate blue full color photos	blue, black, white full color photos	black, white, blue	-	-
1993	-	full color photos	full color photos	black, white, blue	full color photos	-
1994	teal, white, black	full color photos	full color photos	lt. teal, white, black	-	-

Key: shading indicates net loss

Table M-6. Yearly Colors used in Graphics in IBM's Annual Reports, 1985-1994

	Financial Highlights	Letter to Stockholders	Narrative/Scope of Operations	Managements' Discussion and Analysis	Board of Directors	Supplemental Data
1985	teal, red	full color photos	full color photos	green, orange, teal, gray, coral, blue, fuschia, brown	-	-
1986	blue, bronze	full color photos	full color photos	rust, bronze, taupe, periwinkle, gray, steel blue, dark blue, black	-	-
1987	periwinkle, rose brown	full color photos	full color photos	lt. brown, lt moss green, periwinkle, taupe, lt purple, med. purple, rose brown, wine, blue	-	-
1988	-	full color photos	full color photos	-	-	-
1989	-	full color photos	full color photos	med. blue, taupe, gray, wine, moss green	-	-

Key: shading indicates net loss

Continued

Table M-6. Yearly Colors used in Graphics in IBM's Annual Reports, 1985-1994 Continued

	Financial Highlights	Letter to Stockholders	Narrative/Scope of Operations	Managements' Discussion and Analysis	Board of Directors	Supplemental Data
1990	black, brown, blue	full color photos	full color photos	blue, black, white, tan, dark blue, med. blue	-	-
1991	green, red, blue	full color photos	full color photos	blue, red, green, taupe, white, med. blue	-	-
1992	green, red, blue	full color photos	black, white, green, gold full color photos	blue, red, green, wine, black, goldenrod	-	-
1993	-	full color photos	full color photos	-	-	-
1994	-	full color photos	full color photos	-	-	-

Key: shading indicates net loss

Table M-7. Yearly Colors used in Graphics in International Paper's Annual Reports, 1985-1994

	Financial Highlights	Letter to Stockholders	Narrative/Scope of Operations	Managements' Discussion and Analysis	Board of Directors	Supplemental Data
1985	-	full color photos	rust, brown, beige full color photos	moss green, forest green, gray, lt green, beige	-	-
1986	-	full color photos	lavender, pale gray, red, green, med. blue, bright pink, royal blue, fuschia, med. green, lt blue, goldenrod, off-white	med. teal, med. blue, goldenrod, med. red, lt gray	-	-
1987	-	full color photos	chartreuse, lt blue, med. orange, goldenrod, beige, lavender, pink, lt. teal, taupe, rust, white	-	-	-
1988	-	full color photos	full color photos	teal, white, black	-	-

Key: shading indicates net loss

Continued

Table M-7. Yearly Colors used in Graphics in International Paper's Annual Reports, 1985-1994 Continued

	Financial Highlights	Letter to Stockholders	Narrative/Scope of Operations	Managements' Discussion and Analysis	Board of Directors	Supplemental Data
1989	steel blue, florentine green, burnt sienna, brown, rust, green	full color photos	med. blue, lt gray, navy, goldenrod, breen, black	steel blue, florentine green, burnt sienna, brown, rust, green	-	-
1990	gold, blue, lt blue, olive, lime green, rust full color photos	full color photos	green, lime green, bronze, gray, red, orange, yellow, wine, purple, peacock, tan, olive full color photos	red, orange, gold, blue, olive, navy, bronze, forest green, peacock	-	-
1991	-	full color photos	slate gray, goldenrod, orange, fuschia, lt blue, chartreuse, white	chartreuse, med. blue, wine, lt teal, orange, goldenrod, white	-	-
1992	-	full color photos	lt blue, royal blue, chartreuse, levendar, dark pink, purple, red, orange, bronze, goldenrod, slate gray, white	chartreuse, med. teal, seafoam, lt lavender, purple, dark purple, white royal blue, goldenrod, bronze, wine, orange, plum,	-	-

Key: shading indicates net loss

Continued

Table M-7. Yearly Colors used in Graphics in International Paper's Annual Reports, 1985-1994 Continued

	Financial Highlights	Letter to Stockholders	Narrative/Scope of Operations	Managements' Discussion and Analysis	Board of Directors	Supplemental Data
1993	orange, royal blue, lt purple, chartreuse, goldenrod, dark purple, red, purple, olive, lt blue	full color photos	blue, goldenrod, peacock, green, orange, olive, red, salmon, chartreuse, navy, med. blue, lt orange, wine, red/orange full color photos	chartreuse, orange, peacock, purple, med. purple, lt purple, green, bronze, wine, goldenrod	full color photos	-
1994	yellow, black, white, red, chartreuse, blue	full color photos	black/white photos full color photos	red, yellow, black, white, gray, green full color photos	full color photos	-

Key: shading indicates net loss

Table M-8. Yearly Colors used in Graphics in Eastman Kodak's Annual Reports, 1985-1994

	Financial Highlights	Letter to Stockholders	Narrative/Scope of Operations	Managements' Discussion and Analysis	Board of Directors	Supplemental Data
1985	full color photos	full color photos	green, black, red periwinkle full color photos	taupe, olive, black	full color photo	-
1986	full color photos	full color photos	full color photos	dark rose, black, light gray, charcoal	full color photos	-
1987	-	full color photos	full color photos	dark green, teal sky blue	full color photos	-
1988	-	full color photos	full color photos	dark teal, beige, med. teal	-	-
1989	-	full color photos	orange, green, blue, red, yellow, white full color photos	steel blue, gray, dove gray	full color photos	-
1990	-	full color photos	full color photos	3 shades of teal	full color photos	-
1991	-	full color photos	bright yellow, black, gray, pink, green full color photos	-	-	-

Key: shading indicates net loss

Continued

Table M-8. Yearly Colors used in Graphics in Eastman Kodak's Annual Reports, 1985-1994 Continued

	Financial Highlights	Letter to Stockholders	Narrative/Scope of Operations	Managements' Discussion and Analysis	Board of Directors	Supplemental Data
1992	full color photos	full color photos	full color photos	magenta, lt. blue, peacock blue, black, white, orange, lt. magenta, purple, lt. purple	full color photos	-
1993	-	full color photos	red, gold, black, green, blue, purple, rose, yellow, lt blue, lt. lavender full color photos	-	full color photos	-
1994	full color photos	full color photos	purple, violet, chartreuse, yellow, olive, med. green full color photos	-	full color photos	-

Key: shading indicates net loss

Table M-9. Yearly Colors used in Graphics in Philip Morris' Annual Reports, 1985-1994

	Financial Highlights	Letter to Stockholders	Narrative/Scope of Operations	Managements' Discussion and Analysis	Board of Directors	Supplemental Data
1985	-	full color photos	full color photos	-	-	-
1986	-	blue, gold, wine, red, olive, beige	green, beige, orange, slate blue full color photos	orange, black	full color photos	-
1987	full color photos	blue, lavender, lt blue, lt moss green, beige, rose, bronze, lt teal, lt. violet	lt teal, beige, rose, black full color photos	lt blue, black, beige	full color photos	-
1988	-	lt blue, purple, lime green, red, orange, blue, yellow, green	red, orange, gray, blue, yellow, green, purple, full color photos	blue, purple, green, black	full color photos	-
1989	-	purple, sky blue, black, yellow, green, blue, chartreuse, red, orange full color photos	gray, blue, black, yellow, tan, butterscotch, purple full color photos	royal blue, black, blue	full color photos	-

Key: shading indicates net loss

Continued

Table M-9. Yearly Colors used in Graphics in Philip Morris' Annual Reports, 1985-1994 Continued

	Financial Highlights	Letter to Stockholders	Narrative/Scope of Operations	Managements' Discussion and Analysis	Board of Directors	Supplemental Data
1990	-	lt blue, lavender, green, yellow, purple, red, blue, gold full color photos	gray, gold, bronze, blue, green, yellow, purple, red/yellow, lt blue, med. green, med. blue, black full color photos	green, black, med. blue, gold	full color photos	-
1991	purple, lime green, med. blue, gold, royal blue, red	full color photos	med. green, red, gold, lime green, black full color photos	steel blue, gold, purple, lime green	full color photos	-
1992	-	full color photos	full color photos	-	full color photos	-
1993	blue, orange, purple, green, yellow, red full color photos	red, blue, gray, green full color photos	full color photos	-	full color photos	-
1994	green, purple, blue, black, red, orange, yellow full color photos	gray, lt gray, yellow, red, blue, green full color photos	goldenrod, red, blue, black, white, black, orange, purple full color photos	-	full color photos	-

Key: shading indicates net loss

Table M-10. Yearly Colors used in Graphics in Tenneco's Annual Reports, 1985-1994

	Financial Highlights	Letter to Stockholders	Narrative/Scope of Operations	Managements' Discussion and Analysis	Board of Directors	Supplemental Data
1985	-	taupe, moss green, white full color photos	mocha, red, blue, black, taupe, moss green, white full color photos	-	-	-
1986	-	bronze, lime green full color photos	bronze, med. teal, dark blue full color photos	-	-	-
1987	-	teal, lavender, white full color photos	green, purple, white full color photos	-	-	-
1988		full color photos	full color photos	wine, blue, olive, yellow, green, florentine green, goldenrod	full color photos	-
1989	mauve, med. olive, mustard, lt teal, lt olive, lt bronze	full color photos	mauve, mustard, med. teal, dark taupe, lt olive, lt bronze full color photos	-	full color photos	-

Continued

Table M-10. Yearly Colors used in Graphics in Tenneco's Annual Reports, 1985-1994

	Financial Highlights	Letter to Stockholders	Narrative/Scope of Operations	Managements' Discussion and Analysis	Board of Directors	Supplemental Data
1990	slate blue, mauve, moss green	full color photos	full color photos	-	full color photos	-
1991	slate blue, dark teal, med. teal, dove gray, forest green, med. green, med. gray	full color photos	full color photos	-	-	-
1992	-	blue, red, yellow, green, white full color photos	bronze, taupe full color photos	-	-	-
1993	purple, bronze, red, blue, goldenrod, lime green full color photos	full color photos	purple, goldenrod, lime green, bronze, blue, dove gray, gray, red full color photos	-	-	-
1994	teal, red, blue, purple, goldenrod full color photos	-	teal, blue full color photos	-	-	-

**APPENDIX N: TABLE 1. CONVERSION OF FIGURE COLORS TO
PANTONE® COLOR MATCHING SYSTEM**

Table N-1. Conversion of Graphic Figure Colors, by Company, to Pantone® Color Matching System, 15th Ed.

Alcoa

Beige	545	Medium Blue	285
Blue	Reflex Blue	Medium Green	360
Bronze	146	Moss Green	363
Chartreuse	389	Olive	455
Dark Chartreuse	382	Orange	151
Fuschia	212	Pale Blue	290
Gold	116	Purple	266
Goldenrod	124	Red	Warm Red
Green	361	Rust	173
Gray	430	Seafoam	304
Light Lime Green	367	Steel Blue	296
Light Moss Green	373	Taupe	451
Lime green	375	Yellow	Yellow

Du Pont

Antique Gold	126	Olive	455
Baby Blue	290	Orange	151
Beige	545	Pale Green	332
Blue	Reflex Blue	Pale Gray	421
Bronze	146	Pastel Blue	277
Burgundy	478	Pastel Green	331
Chartreuse	389	Pastel Orange	155
Cream	134	Pastel Pink	196
Dark Blue	281	Pastel Yellow	100
Forest Green	357	Pastel Gray	434
Goldenrod	124	Purple	266
Green	361	Red	Warm Red
Gray	430	Rose	231
Lavender	529	Rust	173
Light Blue	544	Slate Blue	549
Light Lavender	531	Steel Blue	296
Light Orange	150	Taupe	451
Light Taupe	453	Teal	321
Mauve	508	Wine	234
Mint Green	352	Yellow	Yellow
Moss Green	363		

Continued

Table N-1. Conversion of Graphic Figure Colors, by Company, to Pantone® Color Matching System, 15th Ed. (Continued)

Exxon

Blue	Reflex Blue	Light Teal	362
Bronze	146	Medium Blue	285
Brown	168	Medium Brown	154
Burgundy	478	Moss Green	363
Charcoal	447	Orange	151
Dove Gray	434	Peach	162
Fuschia	212	Purple	266
Gold	116	Red	Warm Red
Goldenrod	124	Rust	173
Green	361	Steel Blue	296
Gray	430	Tan	468
Lavender	529	Taupe	451
Light Blue	544	Teal	321
Light Moss Green	373	Wine	24

General Electric

Beige	545	Maize	128
Blue	Reflex Blue	Mauve	508
Bronze	146	Medium Green	360
Burgundy	478	Navy	276
Dark Green	341	Orange	151
Forest Green	357	Orange-Red	179
Gold	116	Purple	266
Goldenrod	124	Red	Warm Red
Green	361	Red Wine	221
Gray	430	Royal Blue	293
Lavender	529	Seafoam	304
Light Blue	544	Slate Blue	549
Light Green	353	Teal	321
Light Orange	150	Wine	234
Light Wine	240	Yellow	Yellow
Lime Green	375		

General Motors

Beige	545	Light Teal	326
Blue	Reflex Blue	Slate Blue	549
Gray	430	Teal	321

Continued

Table N-1. Conversion of Graphic Figure Colors, by Company, to Pantone® Color Matching System, 15th Ed. (Continued)

International Business Machines

Blue	Reflex Blue	Medium Blue	285
Bronze	146	Medium Purple	264
Brown	168	Moss Green	363
Coral	178	Orange	151
Dark Blue	281	Periwinkle	272
Gold	116	Red	Warm Red
Goldenrod	124	Rose Brown	500
Green	361	Rust	173
Light Brown	139	Tan	468
Light Moss Green	373	Teal	321
Light Purple	264	Wine	234

International Paper

Bright Pink	218	Medium Purple	265
Bronze	146	Medium Red	179
Brown	168	Medium Teal	320
Burnt Sienna	471	Moss Green	363
Charcoal	447	Navy	276
Chartreuse	389	Olive	455
Dark Purple	268	Orange	151
Dove Gray	434	Peacock Blue	313
Florentine Green	370	Pink	217
Forest Green	357	Plum	525
Fuschia	212	Purple	266
Gold	116	Red	Warm Red
Goldenrod	124	Red-Orange	165
Green	361	Royal Blue	293
Gray	430	Rust	173
Lavender	529	Salmon	177
Light Blue	544	Seafoam	304
Light Green	353	Slate	439
Light Gray	420	Taupe	451
Light Lavender	531	Wine	234
Light Teal	362		
Lime Green	375		
Medium Blue	285		
Medium Green	360		
Medium Orange	150		

Continued

Table N-1. Conversion of Graphic Figure Colors, by Company, to Pantone® Color Matching System, 15th Ed. (Continued)

Kodak

Beige	545	Light Teal	326
Blue	Reflex Blue	Magenta	232
Bright Yellow	109	Medium Green	360
Charcoal	447	Medium Teal	320
Chartreuse	389	Olive	455
Dove Gray	434	Orange	151
Dark Green	341	Peacock Blue	313
Dark Rose	232	Periwinkle	272
Dark Teal	322	Purple	266
Gold	116	Pink	217
Green	124	Red	Warm Red
Gray	430	Rose	231
Light Blue	544	Sky Blue	291
Light Gray	420	Steel Blue	296
Light Lavender	531	Taupe	451
Light Magenta	237	Teal	321
Light Purple	264	Violet	527
Light Steel Blue	283	Yellow	Yellow

Philip Morris

Beige	545	Lime Green	375
Blue	Reflex Blue	Medium Blue	285
Bright Green	354	Medium Green	360
Bronze	146	Olive	455
Butterscotch	138	Orange	151
Chartreuse	389	Purple	266
Gold	116	Red	Warm Red
Goldenrod	124	Rose	231
Green	361	Royal Blue	293
Gray	430	Sky Blue	291
Lavender	529	Steel Blue	296
Light Blue	544	Tan	468
Light Moss Green	373	Teal	321
Light Teal	362	Wine	234
Light Violet	529	Yellow	Yellow

Continued

Table N-1. Conversion of Graphic Figure Colors, by Company, to Pantone® Color Matching System, 15th Ed. (Continued)

Tenneco

Blue	Reflex Blue	Medium Gray	422
Bronze	146	Medium Teal	320
Brown	168	Mocha	465
Burgundy	478	Moss Green	363
Dark Blue	281	Mustard	117
Dark Teal	322	Navy	276
Dark Taupe	403	Olive	455
Florescent Green	389	Purple	266
Forest Green	357	Red	Warm Red
Goldenrod	124	Silver	429
Green	361	Slate	439
Lavender	529	Slate Blue	549
Light Bronze	132	Taupe	451
Light Olive	112	Teal	321
Lime Green	375	Wine	234
Mauve	508	Yellow	Yellow
Medium Green	360		

2
VITA

Kaye E. White Walker
Candidate for the Degree of
Doctor of Philosophy

Dissertation: AN ANALYSIS OF GRAPHIC COMMUNICATION IN ANNUAL REPORTS: DOES THE USE OF GRAPHICS VARY DEPENDING ON THE FINANCIAL STATUS OF THE COMPANY?

Major Field: English

Biographical:

Education: Graduated from Enfield Academy, Whitakers, North Carolina in May 1974; received Bachelor of Science degree in English from East Carolina University, Greenville, North Carolina in August 1977; received Certification for Teaching English in the Two-Year College from East Carolina University, Greenville, North Carolina in 1979; received Master of Arts in English from East Carolina University, Greenville, North Carolina in December 1981; received Certificate of Advanced Study in English from East Carolina University, Greenville, North Carolina in 1984. Completed the requirements for the degree of Doctor of Philosophy with a major in English at Oklahoma State University in May 1996.

Experience: Taught various English courses at East Carolina University, North Edgecombe High School, Pitt Community College, and Oklahoma State University during 1978-1989. Employed by Oklahoma State University as a Program Specialist in Academic Affairs Program Services in the Office of the Vice President for Academic Affairs Research 1988-1990. Employed by Oklahoma State University as a Program Coordinator and Program Manager for the College of Arts and Sciences Extension Office 1990-present.

Professional Memberships: Society for Technical Communication, Association of Continuing Higher Education, National University Continuing Education Association.