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Changes in media mix for leading national advertisers (2003 - 2005)

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**Changes in Media Mix for Leading National Advertisers
(2003 – 2005)**

by Matthew D. Swain

A thesis submitted in partial fulfillment of the requirements
for the degree of Master of Science
in the School of Print Media
in the College of Imaging Arts and Sciences
of the Rochester Institute of Technology

May 2007

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School of Print Media
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Certificate of Approval

Changes in Media Mix for Leading National Advertisers
(2003 – 2005)

This is to certify that the Master's Thesis of

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has been approved by the Thesis Committee as satisfactory
for the thesis requirements for the Master of Science degree
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Table of Contents

LIST OF TABLES	VI
LIST OF FIGURES	VII
ABSTRACT	VIII
CHAPTER 1: INTRODUCTION	1
INTRODUCTION AND PROBLEM STATEMENT	1
REASON FOR INTEREST	2
CHAPTER 2: LITERATURE REVIEW	3
RADIO	4
<i>Effectiveness of Radio</i>	5
<i>Cost of Radio</i>	5
<i>Recent Past of Radio</i>	6
<i>Near Future of Radio</i>	6
TELEVISION.....	7
<i>Effectiveness of Television</i>	7
<i>Cost of Television</i>	8
<i>Recent Past of Television</i>	8
<i>Near Future of Television</i>	9
NEWSPAPER	10
<i>Effectiveness of Newspaper</i>	10
<i>Cost of Newspaper</i>	10
<i>Recent Past of Newspaper</i>	11
<i>Near Future of Newspaper</i>	11
MAGAZINE	12
<i>Effectiveness of Magazine</i>	12
<i>Cost of Magazine</i>	13
<i>Recent Past of Magazine</i>	13
<i>Near Future of Magazine</i>	13

OUTDOOR.....	14
<i>Effectiveness of Outdoor</i>	14
<i>Cost of Outdoor</i>	15
<i>Recent Past of Outdoor</i>	15
<i>Near Future of Outdoor</i>	16
INTERNET	16
<i>Effectiveness of Internet</i>	17
<i>Cost of Internet</i>	17
<i>Recent Past of Internet</i>	18
<i>Near Future of Internet</i>	18
CHAPTER 3: RESEARCH QUESTIONS.....	20
CHAPTER 4: METHODOLOGY	21
DATA GATHERING	21
ACCOUNTING FOR INFLATION	21
DATA ANALYSIS	22
<i>Unmeasured Media</i>	22
<i>t-Test</i>	24
<i>Sign Test</i>	25
CHAPTER 5: RESULTS.....	26
RESEARCH QUESTION 1.....	26
RESEARCH QUESTION 2.....	32
RESEARCH QUESTION 3.....	39
CHAPTER 6: CONCLUSIONS.....	41
RESEARCH QUESTION 1.....	41
RESEARCH QUESTION 2.....	42
RESEARCH QUESTION 3.....	43
AGENDA FOR FURTHER RESEARCH	45
BIBLIOGRAPHY	47
APPENDIX A: PERCENT CHANGE IN SPENDING BY INDUSTRY.....	52
APPENDIX B: LIST OF TOP 30 ADVERTISERS BY MEDIUM	57

List of Tables

TABLE 1: CALCULATION OF INFLATION PERCENTAGE.....	22
TABLE 2: TWO SAMPLE T-TEST OUTPUT	24
TABLE 3: CRITICAL VALUES FOR THE SIGN TEST AT THE 5% LEVEL	25
TABLE 4: DETERMINING STATISTICAL SIGNIFICANCE (N=81).....	29
TABLE 5: INFLUENCE OF TOP 30 ADVERTISERS...TO WHOLE SAMPLE	30
TABLE 6: VERIFYING STATISTICALLY SIGNIFICANT CHANGES (N=30)	30
TABLE 7: YELLOW PAGES ADVERTISING SPENDING BETWEEN 2003 AND 2005	31
TABLE 8: REPRESENTATION FOR EACH INDUSTRY ANALYZED	32
TABLE 9: AVERAGE CHANGE IN MEDIA EXPENDITURE FROM 2003 TO 2005	33
TABLE 10: GM'S U.S. AD-SPENDING BY MEDIUM (\$ IN MILLIONS).....	44

List of Figures

FIGURE 1: MEASURED MEDIA VS. UNMEASURED MEDIA SPENDING	23
FIGURE 2: DISTRIBUTION OF SPENDING ON MEASURED MEDIA	26
FIGURE 3: TOTAL MEASURED ADVERTISING SPENDING BY MEDIA... ADVERTISERS	27
FIGURE 4: TOTAL MEASURED... FOR OVERLAPPING... ADVERTISERS.....	28
FIGURE 5: CREDIT CARD INDUSTRY: PERCENT CHANGE... 2003 AND 2005	34
FIGURE 6: MOTION PICTURE INDUSTRY: PERCENT CHANGE... 2003 AND 2005	35
FIGURE 7: CHANGE IN SPENDING IN MEDIA FOR ALL INDUSTRIES COMBINED.....	36
FIGURE 8: PERCENT CHANGE IN ADVERTISING SPENDING... BY MEDIUM.....	37
FIGURE 9: PERCENT CONTRIBUTION TO GROWTH BETWEEN 2003 AND 2005.....	39
FIGURE 10: PERCENT CHANGE IN INTERNET ADVERTISING... 2003 AND 2005	40

Abstract

As new communication technologies, such as the Internet, continue to grow in the United States, advertisers are re-evaluating which media mix will deliver the best return on investment. The magazine, *Advertising Age*, releases a list of the 100 Leading National Advertisers each year – a list that includes the advertisers' spending in measured and unmeasured media. The seven measured media categories (newspaper, magazine, television, outdoor, radio, Internet, and Yellow Pages) include the data necessary to analyze the change in advertising spending among these leading national retailers. Using the data from both 2003 and 2005, the researcher explored three questions:

1. Were there significant changes to the distribution of advertising spending by medium between 2003 and 2005?
2. Are there differences in media mix by industry of the advertiser?
3. Has Internet advertising grown at the expense of other media?

After performing the necessary data analysis to answer the first question, the researcher is 95% confident that there was a statistically significant increase in radio and Internet advertising between 2003 and 2005. On the other hand, it was also determined that there was a statistically significant decrease in Yellow Pages advertising.

After analyzing the data for the second research question, it was determined that there has also been a change in advertising spending by industry by medium. The advertisers from the automotive industry most closely correlated with the overall changes among the leading national advertisers, while other industries had substantially larger increases in spending for Internet and radio advertising.

In exploring the third research question regarding Internet advertising spending taking away from other media, the data does not support or reject this claim. Although Internet advertising grew at a statistically significant rate, other media also increased. Using this data set, the one medium that could be losing ground due to Internet advertising is in Yellow Pages advertising. This being said, there are too many variables involved in this study to single out Yellow Pages as a new source for Internet advertising dollars.

This study provides a basis for further research using data from future annual releases of *Advertising Age's* "100 Leading National Advertisers." It also could lead a person into further research surrounding the recent growth in radio and Internet advertising as well as the significant reduction in printed Yellow Pages advertising spending.

Chapter 1

Introduction

Introduction and Problem Statement

Where it was once standard to put the majority of their advertising efforts into television and newspaper, corporations have re-evaluated the distribution of their advertising budgets. As new types of communication media continue to evolve, leading national advertisers will need to change with the evolution of this new media. One medium that has played a major role in this advertising transition is the Internet.

The Internet has become a powerful medium for advertising over the past decade. In the post-9/11 economy, top companies have revitalized their advertising budgets. Some of these companies are still focusing the majority of their budgets toward television advertising, while others have decided to dedicate more funds to newer advertising paths such as the Internet.

By studying recent trends in the distribution of advertising spending among leading advertisers, such as Procter & Gamble, McDonald's, Pfizer, Toyota, and Visa, the researcher believes that he can make a significant contribution to the advertising industry. The researcher looked at the 100 leading national advertisers from 2003 and 2005 in order to analyze changes in media strategies.

Reason for Interest

The researcher became interested in this topic because of two factors – his interest in how money changes hands and his desire to enter the field of print sales. In print sales it can be important for a person to understand the marketing and advertising side of selling because of the desire to sell to “C Level” executives such as the Chief Marketing Officer or Vice President of Marketing. In doing this type of project, the researcher intended to show his knowledge of recent trends of the marketing and advertising fields, thus creating credibility in selling at this level.

Chapter 2

Literature Review

When Johannes Gutenberg invented movable type printing in 1450, he effectively created modern advertising in the form of the handbill (Outdoor Advertising, 2006). Over 250 years later, in 1704, the *Boston News-Letter* published the first newspaper advertisement (Advertising History Timeline, n.d.). It was not until 1835 that printed outdoor advertising, in the form of a large format poster, became a reality (Outdoor Advertising, 2006). In 1922, a Long Island real estate firm made history by purchasing the first radio commercial ever. Within the following two decades, radio advertising continued to grow to the point where it received higher advertising revenue than the magazine industry (Advertising History Timeline, n.d.). Only a few years after that feat by the radio industry, the first television advertisement appeared on July 1, 1941 (Advertising History Timeline, n.d.). In just over a decade, broadcast television was hailed as the largest advertising medium in the world (Advertising History Timeline, n.d.). Years later came the Internet, with a user-base of five million people as early as 1993. In 1999, it was accounting for more than \$2 billion in advertising revenue worldwide (Advertising History Timeline, n.d.).

With this brief overview of some of the key points in the history of advertising, it is clear that advertising has evolved with each generation of new media. At one point, 90%

of the United States could be reached by running prime-time television commercials. The advent of the Internet has created new challenges for advertisers who seek the most effective distribution of their (client's) advertising budget (Who Can Spell Relief? 2004).

Advertising Channels

Advertisers have many media choices when planning to distribute a message. Depending on the target audience, advertisers select the media that deliver the best solution for their needs. Many top advertisers have realized that their messages are best received when they are distributed over multiple channels (Lewis, 2006). A few of those channels are radio, television, newspaper, magazine, outdoor signage, and the Internet – all of which have their own unique benefits.

Radio

In the mid-1930s, Americans began to rely more heavily on radio than newspaper when they wanted a source that they could trust. Whether it was the fact that they could hear the story from a human voice or that radio was a new medium that had not yet disappointed them, radio was on the rise. The result of this change was that advertisers moved larger portions of their budgets toward radio, cutting into newspapers' income. By 1950, the number of households with radios doubled to 40 million (Radio Golden Age, n.d.).

Effectiveness of Radio

The most important advantage of radio advertising is that it is highly targeted and has the shortest “closing period.” This means that the advertising material can generally be changed right up until the minute that it airs, offering the great advantage of not appearing dated or redundant. Disadvantages of radio advertising include lack of visuals and lack of attentive listeners because the medium is generally used as a “pleasant background” (Wells, Burnett & Moriarty, 1995).

Although it might often be background noise, radio advertisements can jump out to the audience and grab someone’s attention that would have otherwise never even considered the product or services of the advertiser (On the Radio, 2000). Digital radio has re-vitalized the medium by giving consumers more listening options, effectively dispersing the listener-base. Advertisers are also taking advantage of this segmentation by being able to target their message to a much narrower demographic (Digital Audio Radio Service, 2000).

Cost of Radio

The cost of radio advertising on a particular radio station is highly dependent on the market demand, the station’s ratings, and the cumulative audience (R. Willard, personal communication, February, 8, 2007). In 2004, research showed that radio advertising cost 1/7th that of television advertising (Barber, 2004). A 60-second advertisement in a major market costs about \$800 (Vranica, 2006). One study showed that, because of the small

cost involved, radio was 49% more efficient than television as far as return on investment (Klassen & Kerwin, 2005).

Recent Past of Radio

Radio advertising spending in 2004 made up 11% of the total advertising spending, accounting for \$20.3 billion (Veronis, Suhler, & Stevenson, 2005). In terms of consumer mindshare, radio grabbed more than a quarter of it in 2005 (Lindsay, 2006). In recent years, radio has made up 7-8% of total advertising expenditure. This being said, experts within the radio industry have attempted to rekindle trust in the effectiveness of the medium (Klassen & Kerwin, 2005). Noting a recent significant investment in HD radio, Gary Graff wrote that “the HD Radio Alliance committed more than \$200 million to promote more than 250 new digital channels in 28 markets” (Graff, 2006). In 2004, it was estimated that nineteen million people listened to online radio at least once a day, up from only seven million in 2000 (Fonda, 2004).

Near Future of Radio

Recent studies suggested that radio is a powerful advertising medium when used in conjunction with other media. Because of the hype around multi-channel marketing, radio will most likely maintain its proportion of the advertising pie (Brown, 2005). Clear Channel is attempting to boost its revenue and entice new advertisers by breaking the norms of traditional radio advertising and offering five-second spots, called “adlets” at about 20% the cost of a 60 second advertisement. They will also offer two-second ads at

half the cost of the five-second ads. There is a split between media buyers on whether or not this approach is going to be successful, but it could be a good opportunity for radio stations looking to attract smaller customers (Vranica, 2006).

Television

Television advertising is generally broken up into broadcast television and cable and satellite television. In general, it is the most popular consumer medium, which means that it controls the largest portion of consumer mindshare. In 2004, the average consumer watched 1,546 hours of television (Veronis, Suhler & Stevenson, 2005). It is no wonder then, that the total U.S. television advertising expenditure for the same year was \$61.6 billion, nearly 1/3rd of the \$188.5 billion in total expenditures (*2005 Marketing Fact Book*, 2005).

Effectiveness of Television

Television allows advertisers to stimulate both the audio and visual systems of consumers, increasing the impact of their messages. Because it is much more image oriented than radio, it is also a good medium for brand positioning (Vakratsas & Ma, 2005). Also, with the large audience that television attracts, the cost per person reached could be less than a penny. However, the disadvantage of this approach is that producing and airing a television commercial can be extremely expensive in terms of absolute costs (Wells, Burnett & Moriarty, 1995).

Cost of Television

The costs of television advertisements may fluctuate more than any other medium. A thirty-second spot at the 2005 Superbowl was selling for \$2.6 million. Advertising during primetime television shows such as “Grey’s Anatomy” had a similar price tag. At the other extreme, Spot Runner, a national media buyer, offers a variety of prices for 30 second advertisements with prices as little as \$7.00 for an ad on *HGTV* in Evanston, Illinois (Spot Runner, 2006). The cost of television advertising is generally based on the estimate of how many viewers will see the advertisement, accounting for inconsistencies in pricing for television commercials.

Recent Past of Television

Several years ago, television advertising made up 1/3rd of measured media expenditures, capturing the largest share of any media (Veronis, Suhler, & Stevenson, 2004). This number correlates directly back to the projection that, in 2005, television accounted for nearly 45% of American adults’ daily media consumption (Lindsay, 2006). In 2004, broadcast television advertising spending experienced a substantial increase because of unprecedented spending on the presidential election and the Olympics. This excitement was short-lived, however, when in June of 2005, Procter & Gamble announced that it would be cutting \$300 million from its television advertising budget.

As the world’s largest advertiser, this was a significant announcement for the future of television advertising. Procter & Gamble has historically been a leading television advertiser, spending roughly \$2 billion last year in television alone. Media buyers

speculated that the company wanted to reduce its dependence on television advertising. One New York ad consultant suggested that “a big factor accelerating [Procter & Gamble’s advertising] shift now ... is that TV-advertising costs have been rising and confidence in the medium’s ability to reach consumers has been eroding.” With Procter & Gamble making such a drastic change to its advertising spending, it will be interesting to see who follows suit (Mandese, 2005).

Near Future of Television

In August of 2006, the Australian beer company, Foster’s, announced that it will no longer run television advertisements in the U.S. and will focus solely on Internet advertising. While other beer manufacturers are continuing to pour money into television commercials, they are also more aggressively pursuing Internet audiences, indicating that beer companies may start to move away from television as the primary means of reaching their demographic of males between the ages of 18 and 34 (Becker, 2006).

At the same time as the Internet is gaining consumer mindshare, digital video recorders, such as TiVo, are finding their way into a growing number of households – yet another erosion for television advertising. Digital video recorders allow consumers to take control of when they watch a program and whether or not they want to sit through the commercials. Given the option, viewers will increasingly choose “time-shift” viewing to by-pass the inconvenience of commercial breaks (Elms, 2004).

Newspaper

Newspaper advertising is over three centuries old. The first newspaper advertisement was for the sale of property on Long Island in 1704. It is a medium that has been used extensively for advertising in the form of classifieds, inserts, and in-page ads. The industry has been shrinking due to the loss of subscribers and advertising dollars to the Internet ('NY Times' to Cut 250 Jobs, 2006).

Effectiveness of Newspaper

Newspaper is an appealing medium because of its extensive market coverage, geographic flexibility, and the positive attitude that consumers generally have toward it. Some of the disadvantages of advertising in the medium are its short life span, the amount of clutter that goes into it, and its generally poor reproduction quality, with the exception of pre-printed material such as inserts (Wells, Burnett & Moriarty, 1995). Depending on the newspaper in which a company chooses to advertise, the message can be molded to the primary demographic of the newspaper's subscriber-base (The lowdown on newspaper advertising, n.d.).

Cost of Newspaper

The standard non-contract 2005 rate for a full-page black and white advertisement in the *Wall Street Journal* was \$184,561.91. The newspaper also offered a full-page advertisement that could be run on its Internet version for \$18,456.19 (E-page programs, 2005). These figures are at the higher end of what advertisers are paying to get their

message through to the consumer. Similar to television, there can be drastically different pricing for this type of advertising depending on the subscriber-base of the newspaper.

Recent Past of Newspaper

Between 1998 and 2003, newspaper advertising lost 4% of its market share, dropping to 18% (*2004 Marketing Fact Book*, 2004). In 2003, newspaper advertising was the second-highest recipient of advertising spending on measured media with a 27% market share accounting for \$52.2 billion (Veronis, Suhler, & Stevenson, 2004). As a communication tool, it accounted for approximately 5% of the consumer's daily media intake (Lindsay, 2006). The newspaper industry as a whole has experienced losses over the past few years. One industry that newspapers have worried about in recent years is their real estate advertisers. Real estate advertising is roughly an \$11 billion business yearly. For a long time, newspapers enjoyed a significant portion of real estate advertising; however, changes in consumer behavior have sparked changes in real estate advertising spending.

Near Future of Newspaper

As more consumers turn to online shopping for property, a number of companies are reducing their newspaper advertising spending and moving it toward online advertising. Some newspapers are fighting back by teaming up to host websites such as apartments.com, where they can entice advertisers to continue advertising in their newspapers by offering the opportunity to advertise online as well (Mullaney, 2006).

Magazine

Magazines have been around for many years and have always provided a great medium for advertisers. Where some magazines, such as *Vanity Fair*, have turned to overwhelming the consumer with advertisements, others choose to limit the directness of their magazine advertising. One study suggested that magazine advertising has been 40% more effective than television and as much as 60% more effective than radio. The same study implied that a media mix that compromised television advertising for more magazine advertisement yielded a much more effective campaign (Accountability, n.d.).

Effectiveness of Magazine

Magazine advertising has many advantages, the most rewarding being the ability to convey the message to a very discrete audience. Because there are magazines for every interest, advertisers take advantage of highly targeting their campaign. In this medium, advertisers also tend to have the opportunity to take advantage of superior printed quality (Wells, Burnett & Moriarty, 1995). The limitations of magazine advertising include limited flexibility and the high cost of advertising in magazines that have extensive distribution networks.

Since magazines are printed in higher quality, they are usually saved and revisited by the consumer. The advertiser expects that the consumer will see its advertisement multiple times, creating an indefinite lifespan for the promotional piece - something that cannot be achieved through radio, television, or Internet advertisement.

Cost of Magazine

The cost of advertising in color on a page of a nationally distributed publication of *Time Magazine* will cost an advertiser \$246,000 (Editions & Rates, 2005). Companies can also choose to advertise in regional releases of the magazine in order to cut costs and better target the audience. Regional advertising costs vary by region, but are significantly cheaper than advertising at the national level because of the smaller anticipated audience.

Recent Past of Magazine

Magazine advertising accounted for \$24.2 billion, or 13%, of measured media advertising expenditure in 2003 (Veronis, Suhler, & Stevenson, 2004). In 2005, it consumed about 3.5% of the average adult American's day (Lindsay, 2006). Magazine advertising spending has remained constant at about 5% of total advertising spending in the United States. There has been a significant drop in magazine titles across all industries, which has had an effect on the amount of magazine advertising space available to advertisers (2004 Marketing Fact Book, 2004).

Near Future of Magazine

In one study, it was found that two-thirds of the consumers surveyed said that they learned about the website in question after first seeing it advertised in a magazine. Advertisers have recognized the power of multi-channel marketing, and have taken advantage of using magazines as a bridge to their websites. The magazine industry stands to further benefit from the Internet because of this very fact (Kanso & Nelson, 2004).

Another tie to Internet advertising is by running print and online catalogs simultaneously. According to a Maritz Rewards study, using both print and online catalogs can dramatically increase sales. The study states that “consumers who received a printed catalog were twice as likely to make an online purchase, more likely to spend ‘quality’ time on the retailer’s site and made 15% more transactions than those who did not receive a catalog” (A Powerful One-Two Punch, n.d.).

Outdoor

Outdoor advertising falls into four major categories – street furniture, transit, alternative outdoor, and billboard - according to the Outdoor Association of America. In 2005, billboards made up 64% of the total outdoor advertising spending of \$6.3 billion – a market that has grown by 20% since 2000 (Outdoor Advertising, 2006).

Effectiveness of Outdoor

Outdoor advertising is everywhere - it surrounds the consumer to a point where it cannot be missed. It is an important media that can send its message 24 hours a day. It is seen on buildings, buses, or signs on the morning drive to work or hovering overhead when the PGA is in town. It can be very large, very colorful, and consequently – hard to ignore. It is recognized as the least expensive major media communication tool and is great for messages that need to be repeated (Wells, Burnett & Moriarty, 1995). Another benefit of outdoor advertising is that the message can be presented in many different ways at a fraction of the cost of other advertising media such as television. By employing outdoor

advertising, there is no limit to how many times the same person may see the message and relate to it. It is for this reason that outdoor advertising can be so effective (Quirin, 2005). A disadvantage of the medium is the generally short duration of each exposure, resulting in the need for brief messages (Wells, Burnett & Moriarty, 1995).

Cost of Outdoor

Because of the breadth of types of outdoor advertising, it is difficult to put a number on the cost of using the medium. Ten years ago, billboard advertising generally cost between \$700 and \$2,500 a month (Iwanowski, 1996). This figure has gone up with inflation, but billboard advertising generally remains quite affordable. In some cases, average outdoor advertising costs do not apply. In January, 2007, the automotive insurer Geico reportedly paid \$3.2 million to place signage on the George Washington Bridge over the next two years (Belson, 2007). The bridge connects New York and New Jersey.

Recent Past of Outdoor

The first few years of the new millennium were characterized by a lull in the growth of outdoor advertising; however, 2003 – 2005 yielded an average yearly growth rate of more than 6% (Outdoor Advertising, 2006). One of the recent roadside implementations has been digital billboards. At the start of 2007, there were about 400 digital billboards nationwide. These billboards allowed for messages to be changed frequently and did not require the printing or set-up and take-down costs that are associated with traditional

billboard advertising. Safety experts have expressed concerns about whether or not these billboards have created added distractions to drivers (Story, 2007).

Near Future of Outdoor

Some industry analysts predict that there could be as many as 90,000 digital billboards lining the nation's streets and highways within the next decade (Story, 2007). Again, safety experts and zoning commissions will most likely play a role in at least slowing this implementation process. In terms of outdoor advertising in general, it will continue to be an excellent compliment to multi-channel advertising campaigns. Advertising expenditure in this field has been growing for the last decade, giving rise to the notion that outdoor advertising expenditures will continue to grow (Outdoor Advertising, 2006).

Internet

Although the Internet is a comparatively young medium, it has proven to be quite effective, due to the number of consumers who use it every day. Just as the television quickly claimed radio advertising dollars upon its inception, the Internet is posing the television industry with a similar conundrum. Consumer Internet expenditures are expected to continue to grow at a double-digit compound annual rate through 2009, thus justifying the projected increases to Internet advertising spending (Veronis, Suhler & Stevenson, 2005).

Effectiveness of Internet

With Internet advertising, companies can advertise through search engines, banner advertising, and site sponsoring – to name a few of the different approaches. The medium offers many advantages, perhaps the most important of which is its measurability. Advertising through this medium can be extremely well-targeted to a desired audience as well. Another advantage is the ability to personalize online. Much like direct mail, advertisers can target their audience depending on the information that they already know. This touches upon the one-to-one marketing concept that has proven to be so effective (Beardi, 2000). One current disadvantage to Internet advertising is that pay-per-click advertisers are paying for falsified click-throughs, something that search engine owners are working to curb.

Cost of Internet

As online advertising is continuing to develop, advertisers are paying for different packages. Some advertisers are paying for every time their website comes up on a keyword search, others are paying for every time their banner ad appears, and others are paying by the number of people that click to enter their web space. Keyword searches and banner ads are fractions of a penny per view, while click-through charges to the advertisers are slightly higher (Leonard, 2006).

Recent Past of Internet

Until as recently as 2003, there had been an overwhelming impression that there was more Internet advertising space to be distributed than there were advertisers to purchase the space. This tended to make all parties involved feel as though Internet advertising was a buyer's market. This feeling kept web advertising inexpensive for many years. In the last several years, there was a shift to a seller's market, where leading websites began to demand higher premiums to advertise on their sites because of their vast reach (Bruner, 2005).

Near Future of Internet

By 2011, Jupiter Research forecasts that online advertising spending will reach \$25.9 billion. There will be a significant jump in online video advertising, with spending up more than three fold to \$1.3 billion, and rich media advertising spending nearing \$3.6 billion. Search advertising spending is projected to grow to \$11.1 billion, and display advertising is likely to reach \$9.1 billion (Maddox, 2006).

By 2009, the average consumer will spend nearly 10 hours per day using some form of media (Veronis, Suhler & Stevenson, 2005). Advertising-based media is losing ground to consumer-based media, which is forcing advertisers to redistribute their advertising dollars toward the emerging new media. The Internet will continue to evolve into a stronger contender for consumer mindshare, but the importance of multi-channel advertising will still be as significant in years to come as it is today (Veronis, Suhler & Stevenson, 2005). This being said, none of these advertising media are threatened to the point of extinction because they each hold their own benefits; however, if advertising budgets are not substantially increased, then some media will suffer losses as others persevere in yielding the highest return on investment (*2004 Marketing Fact Book*, 2004).

Marketers and advertisers alike will continue to use the Internet as an advertising channel because of the media's ability to produce ROI metrics. With heightened measurability, companies will embrace these technological advances and delve into the consumer-based media that has been previously well-preserved in terms of minimized, non-invasive advertising (Veronis, Suhler & Stevenson, 2005).

Chapter 3

Research Questions

Though Internet advertising is growing, it is unclear whether or not it is growing at the expense of other media. The purpose of this research is to examine changes in media choices by industry.

The research focused on three main questions:

4. Were there significant changes to the distribution of advertising spending by medium between 2003 and 2005?
5. Are there differences in media mix by industry of the advertiser?
6. Has Internet advertising grown at the expense of other media?

Formatted: Bullets and Numbering

Formatted: Bullets and Numbering

Chapter 4

Methodology

Data Gathering

This study used the “100 Leading National Advertisers” data for 2003 and 2005 published in *Advertising Age* and compiled by TNS Media Intelligence. Once the data were entered into a spreadsheet, North American Industry Classification System (NAICS) codes were added from hoovers.com for each of the companies on the list.

Accounting for Inflation

Because the financial figures were from different years, we needed to account for inflation of the U.S. dollar. The inflation percentages were retrieved from the Bureau of Labor Statistics on October 24, 2006. The advertising agencies industry was selected from the Producer’s Price Index (PPI). Within this industry, there were sub-categories that matched what the researcher was working with for data. These sub-categories were newspapers, periodicals, television, and radio, Internet, and other media placements.

The 2003 annual figures were compared against the 2005 annual figures in order to estimate the percent change due to inflation. The numbers found in the 2003 and 2005 columns are relative to a starting point of 100, whenever the Bureau of Labor Statistics started recording the data. This means that a 2003 number of 110.1 is 10.1% higher than the starting point of the data. The statistics have been recreated in Table 1.

Table 1. Calculation of inflation percentage

Category	2003	2005	Inflation Percentage
Newspapers	162.3	167.2	103%
Periodicals	124.6	127.6	102%
Television	110.1	113.5	103%
Radio, Internet, and other media placements	110.1	111.7	101%

After retrieving these data, the researcher multiplied the 2003 data by the appropriate inflation percentage in order to get comparable figures to 2005.

Data Analysis

There were ten data points for each firm in each spreadsheet: total U.S. ad spending, estimated unmeasured, measured media, magazine, newspaper, outdoor, television, radio, Internet, and Yellow Pages. Total U.S. ad spending was compared with estimated unmeasured and measured media in order to obtain percent-of-whole charts. The terms “measured” and “unmeasured” were specific to the research performed by TNS Media Intelligence. The measured media was simply the media that they had accurate data for as a result of their methodology. This included the seven media categories Magazine, Newspaper, Outdoor, TV, Radio, Internet, and Yellow Pages. The unmeasured media was everything else that is used as a form of advertising. The following section briefly explains how the unmeasured media compared to the measured media.

Unmeasured Media

Unmeasured media focuses on media such as public relations, trade shows, catalogs and direct mail, B-to-B promotion products, branded entertainment, custom publishing, and

consumer promotion. In 2003, there was \$53.8 billion spent in advertising on measured media among the leading national advertisers, but there was also an estimated \$38.7 billion spent in unmeasured media. Figure 1 compares unmeasured advertising spending to measured advertising spending between 2003 and 2005.

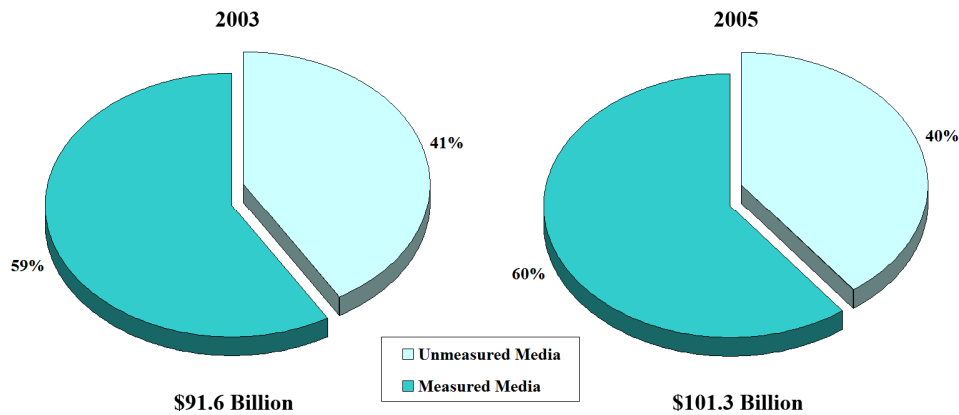


Figure 1. Measured media advertising spending vs. unmeasured media spending

This comparison suggested that, while unmeasured advertising has grown by \$2.3 billion, advertising spending for unmeasured media did not grow as quickly as for measured media, which increased by over \$7 billion in that time period. This contradicted the recent notions that advertising spending on unmeasured media was growing at a faster rate than measured media spending (Cappo, 2003).

While it was important to address this data, the unmeasured media was not the primary focus of the research. The data in the seven individual media categories, (Magazine, Newspaper, Outdoor, TV, Radio, Internet, and Yellow Pages) were used for

the majority of the research. The t-Test and the Sign Test were used to find the statistical significance of the data.

t-Test

In order to perform a t-Test, there must be a sample size of at least 30 to approximate a normal distribution. Microsoft Excel has a package called “Data Analysis” that allowed the researcher to select “t-Test: Two-Sample Assuming Unequal Variances.” Table 2 shows a sample output from this application.

Table 2. Two sample t-Test output

	2003	2005
Mean	221.58	244.66
Variance	14844.13	26151.49
Observations	30	30
Hypothesized Mean Difference	0	
df	54	
t Stat	-0.62	
P(T<=t) one-tail	0.27	
t Critical one-tail	1.67	
P(T<=t) two-tail	0.535138204	
t Critical two-tail	2.00	

In this application, the researcher selected the samples that he wanted to compare and the confidence interval on which he wanted to perform the test. For all testing, the researcher used a 95% confidence interval. This means that the two-tail P-value must be less than or equal to 0.05 to verify that there has been a statistically significant change in the data set. In the example shown in Table 2, the researcher could not reject the null hypothesis because the two-tail P-value was greater than 0.05.

Sign Test

The other test that was used in this study was the Sign Test. This test can be used when there is not a large enough sample size to estimate a normal distribution. In the case of Yellow Pages advertising, there were not enough advertisers who used that medium to perform a standard t-Test, so the Sign Test was used instead. With a smaller sample size, this test only requires that the researcher compare positive and negative changes – in other words, signs. In this specific case, there were nine companies that advertised in the Yellow Pages in both 2003 and 2005. Their 2003 figures, subtracted from their 2005 figures yielded a positive or negative change. Consequently, there was only one company out of the nine that had an increase in its Yellow Pages advertising spending. Table 3 is a reference table for determining whether or not there was a statistically significant change between the two data sets.

Table 3. Critical values for the sign test at the 5% level

Sample Size	Critical Value two-tailed
5	-
6	0
7	0
8	0
9	1
10	1

By definition, if the result is less than *or equal to* the critical value, then the researcher can be 95% confident that there is a statistically significant change. After consulting the reference table, the researcher determined that there was a statistically significant decrease in Yellow Pages advertising.

Chapter 5

Results

Research Question 1

Were there significant changes to the distribution of advertising spending by medium between 2003 and 2005?

Figure 2 shows pie charts of the distribution of advertising spending for measured media among the leading national advertisers of 2003 and 2005.

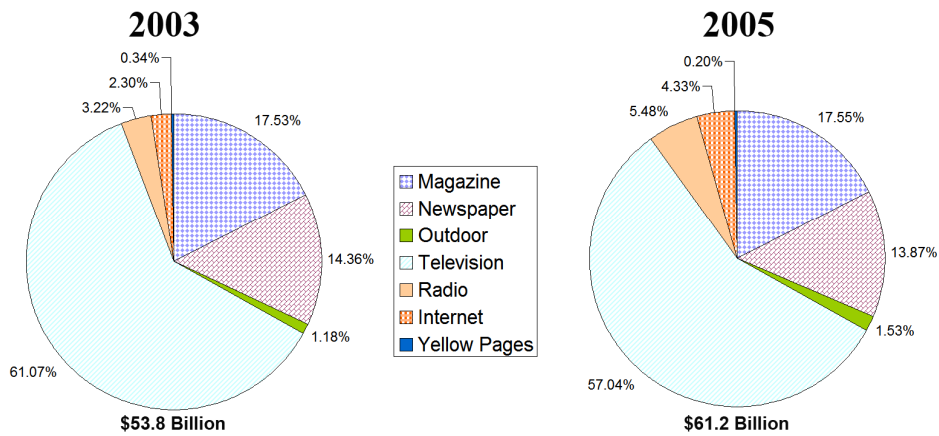


Figure 2. Distribution of spending on measured media

This figure shows that there have been changes to the distribution; however, it does not yet demonstrate that those changes were statistically significant. The relative proportion in Figure 2 revealed that there was a 4% decrease in television advertising's contribution to the total measured advertising spending. The relative proportion increased by more than 2% for both radio and Internet spending was reflected in the statistical significant t-tests. Newspaper advertising's percentage dropped less than 0.5%, while outdoor advertising's percentage increased by less than 0.5%. To further explore this advertising spending, the dollar changes were calculated and presented in Figure 3.

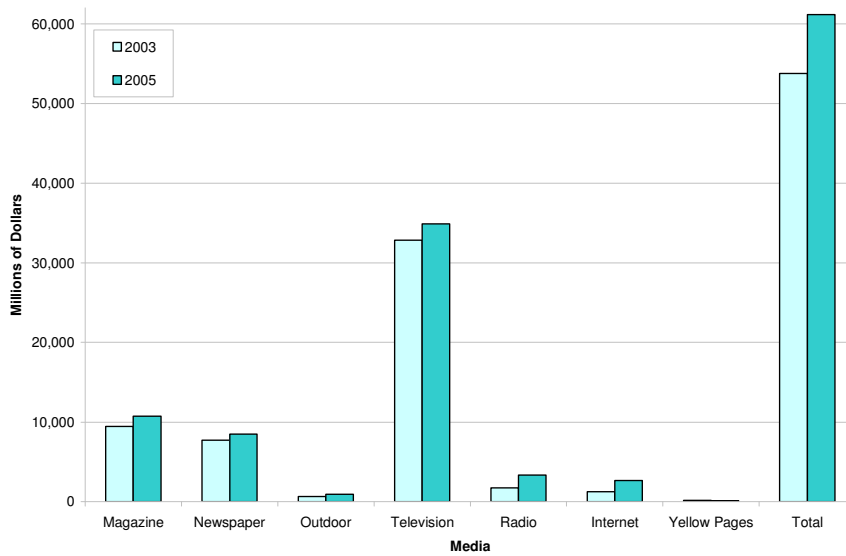


Figure 3. Total measured advertising spending by media for 100 leading national advertisers

Overall spending from 2003 to 2005 grew \$7.4 billion for the 100 leading national advertisers. There was growth in all media types, with the exception of Yellow Pages advertising. Between 2003 and 2005 there were some mergers, acquisitions, blunders, financial constraints, strategic redirections, and other circumstances that altered which companies appeared on the 100 Leading National Advertisers list for 2005. In order to create comparability, the researcher narrowed the data set to companies that appeared on both lists in their exact form, leaving 81 companies in the sample. Graphing the remaining advertisers in Figure 4 shows similar growth to that of the original chart.

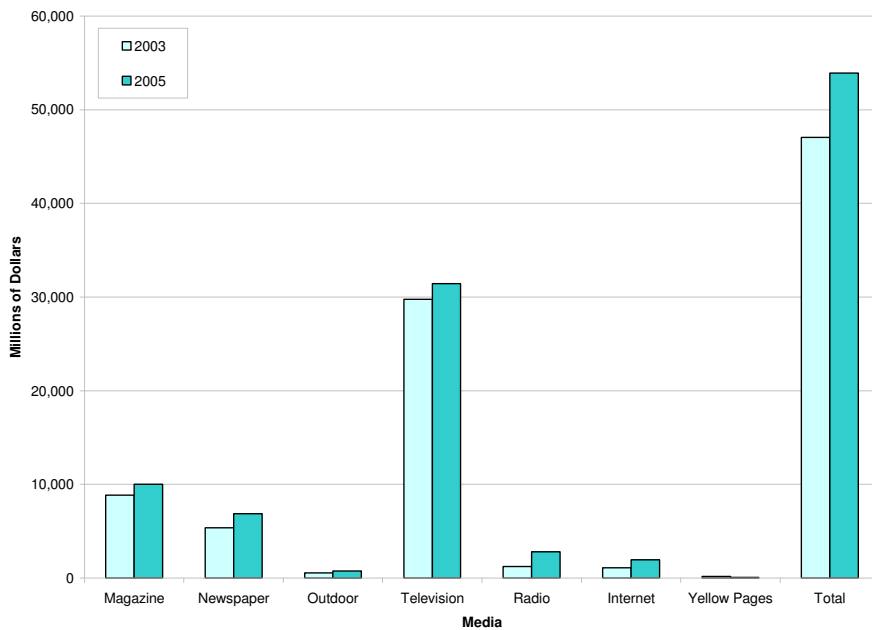


Figure 4. Total measured advertising spending for overlapping 81 leading national advertisers

Using these 81 companies, matched pair t-Tests were performed using a 95% confidence interval in order to see if these changes in advertising spending could be deemed statistically significant. Table 4 shows the results of this testing.

Table 4. Determining statistical significance (n=81)

Media	Mean (in millions)		% Change in Mean	P(T<=t) two-tail	Statistically Significant
	2003	2005			
Magazine	\$109.25	\$123.44	12.99%	0.480	No
Newspaper	66.13	84.82	28.26%	0.347	No
Outdoor	6.98	9.34	33.86%	0.252	No
Television	367.29	388.15	5.68%	0.692	No
Radio	15.36	34.66	125.59%	0.001	Yes
Internet	13.59	24.30	78.77%	0.016	Yes
Yellow Pages	1.96	0.85	-56.53%	0.144	No

According to these results, the researcher was 95% confident that there was a statistically significant increase in spending for radio and Internet advertising. In terms of advertising spending for magazine, newspaper, outdoor, television, and Yellow Pages, the researcher could not reject the null hypothesis that advertising expenditures have stayed the same for these leading national advertisers between 2003 and 2005.

In order to further verify these results, the researcher compiled a list of the top 30 national advertisers in 2003 for each medium and then compared the results to their advertising spending in that medium for 2005. Table 5 shows that the top 30 national advertisers in each medium in 2003 make up the majority of the total advertising spending in that medium.

Table 5. Influence of top 30 advertisers in each medium in 2003 to the whole sample

Magazine	Newspaper	Outdoor	TV	Radio	Internet	Yellow Pages
70.49%	88.41%	85.72%	61.52%	80.23%	77.01%	100%

By definition, a sample size of 30 constitutes a large sample size, so it was tested assuming a normal distribution. Yellow Pages advertising has been omitted from this analysis because there were only nine advertisers to compare, an insufficient number for this particular testing method. Table 6 shows the results of the test.

Table 6. Verifying statistically significant changes (n=30)

Media	Mean (in millions)		% Change in Mean	P(T<=t) two-tail	Statistically Significant
	2003	2005			
Magazine	\$221.58	\$244.66	10.41%	0.535	No
Newspaper	165.45	195.24	18.01%	0.472	No
Outdoor	17.11	21.90	28.00%	0.244	No
Television	670.03	691.99	3.28%	0.824	No
Radio	34.86	62.11	78.17%	0.014	Yes
Internet	29.53	50.35	70.54%	0.030	Yes

By running the same two-tailed t-Tests on a 95% confidence interval, the researcher was able to verify that the results were consistent with the results of the previous t-Tests. For Yellow Pages advertising, there were only nine companies from the 2003 “100 Leading National Advertisers” list that also made the 2005 list. Because of the small sample size, the sign test was used to analyze this medium, as shown in Table 7.

Table 7. Yellow Pages advertising spending between 2003 and 2005

Advertiser	Spending (in millions)			
	2003	2005	Difference	Sign
Cendant Corp.	27.6	7.0	-20.6	-
Ford Motor Co.	22.0	14.5	-7.5	-
Verizon Communications	11.0	11.8	0.8	+
Home Depot	7.7	5.7	-2.0	-
Yum! Brands	7.2	5.4	-1.8	-
General Electric Co.	6.6	4.5	-2.1	-
United Parcel Service	5.9	5.7	-0.2	-
Deutsche Telekom	5.3	4.6	-0.7	-
Wal-Mart Stores	2.6	2.4	-0.2	-

The sign test shows that there was only one leading national advertiser from 2003 that increased its Yellow Pages advertising spending between 2003 and 2005. According to the parameters of the sign test, the researcher was 95% confident that national printed Yellow Pages advertising had suffered a statistically significant reduction among the leading national advertisers between 2003 and 2005.

Refer to Appendix A for graphs of the change in advertising spending for all seven measured media.

Research Question 2

Are there differences in media mix by industry of the advertiser?

The researcher focused on industries with more than one firm within NAICS codes of the top advertisers described in the methodology. Table 8 shows which companies were included in each of those industry classifications.

Table 8. Representation for each industry analyzed

Industry (n)	Representation
Automotive (9)	DaimlerChrysler, Ford, GM, Honda, Hyundai, Kia, Nissan, Toyota, Volkswagen
Pharmaceutical (8)	AstraZeneca, Bristol-Myers Squibb, GlaxoSmithKline, Merck, Novartis, Pfizer, Schering-Plough, Wyeth
Fast Food (5)	Burger King, Doctor's Associates, McDonald's, Wendy's, Yum! Brands
Department Store (5)	Federated Department Stores, J.C. Penney, Kohl's, Sears, Target
Household Cleaners (4)	Clorox, Procter & Gamble, Reckitt Benckiser, SC Johnson
Soft Drink (3)	Cadbury Schweppes, Coca Cola, PepsiCo
Motion Picture (2)	Time Warner, News Corp
Credit Cards (2)	Mastercard, Visa
Computer (2)	Dell, Hewlett-Packard
Cereal (2)	General Mills, Kellogg Co.

There was variation among the industries in their media mixes. Table 9 shows the breakdown of the representation of some of the industries and the average change in expenditures that each industry accounted for per medium.

Table 9. Average change in media expenditure from 2003 to 2005

Industry (n)	Average Total Change	Magazine	Newspaper	Outdoor	TV	Radio	Internet	Yellow Pages
Automotive (9)	\$129 M	\$12 M	\$28 M	\$3 M	\$37 M	\$14 M	\$12 M	-\$5 M
Pharmaceutical (8)	\$77 M	\$8 M	\$8 M	\$ 0.3 M	\$39 M	\$1 M	\$7 M	\$0 M
Fast Food (5)	\$133 M	\$12 M	\$1 M	\$2 M	\$ 0.2 M	\$26 M	\$3 M	-\$0.4 M
Department Store (5)	\$154 M	\$13 M	\$91 M	\$0.6 M	\$16 M	\$18 M	\$4 M	-\$3 M
Household Cleaners (4)	\$204 M	\$32 M	\$55 M	\$0.3 M	\$80 M	\$5 M	\$6 M	\$0 M
Soft Drink (3)	\$165 M	\$38 M	\$12 M	\$9 M	\$58 M	\$36 M	-\$2 M	\$0 M
Motion Picture (2)	\$159 M	\$9 M	-\$19 M	\$17 M	\$7 M	\$73 M	\$36 M	\$0 M
Credit Cards (2)	\$23 M	\$8 M	\$7 M	\$0.4 M	-\$9 M	\$13 M	-\$5 M	\$0 M
Computer (2)	\$153 M	-\$33 M	\$38 M	-\$1 M	\$45 M	\$6 M	\$86 M	\$0 M
Cereal (2)	\$31 M	\$4 M	\$37 M	-\$0.5 M	-\$37 M	\$1 M	\$11 M	\$0 M

In the industries with smaller sample sizes, there are eight instances where advertisers reduced their spending in media other than Yellow Pages from 2003 to 2005. In the same time period, there were only three instances of a reduction in spending for the highly-represented companies, and those were all in Yellow Pages advertising. While computer manufacturers reduced their magazine advertising spending by an average of \$33 million, soft drink manufacturers increased their magazine advertising spending by an average of \$38 million. A similar situation to this is where cereal manufacturers reduced their television spending by an average of \$37 million, but the average change in expenditure for advertisers in the automotive industry was an *increase* of \$37 million. Also, note that the pharmaceutical and household cleaners industries were the only ones to show no decline in advertising for any of the measured media. This table alone shows that there are, in fact, differences in media mix depending on the industry of the advertiser.

The leading national advertisers in both the credit card and the motion picture industry were two of the areas that stood out because they reduced advertising spending in media other than Yellow Pages. Figure 5 shows that industry leaders (in terms of advertising expenditures) in the credit card industry, Visa and MasterCard, reduced their national advertising spending on television and Internet, while magazine, newspaper, outdoor, and radio advertising grew.

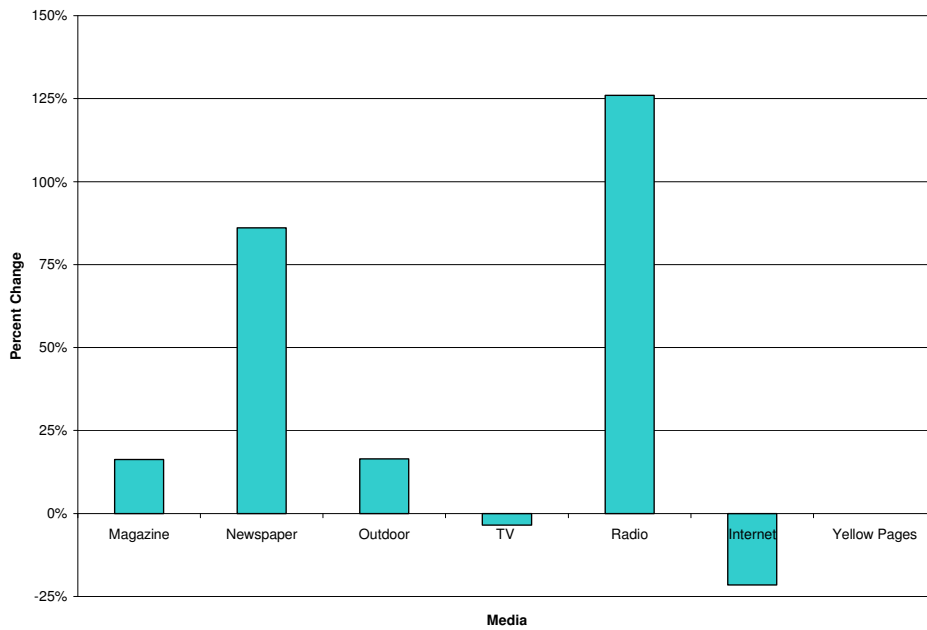


Figure 5. Credit card industry: Percent change in advertising spending between 2003 and 2005

Note that neither company nationally advertised in the Yellow Pages. Another industry that recorded decline in an advertising medium other than Yellow Pages was the motion picture industry. Figure 6 shows the percent change in advertising spending between 2003 and 2005 for the motion picture industry.

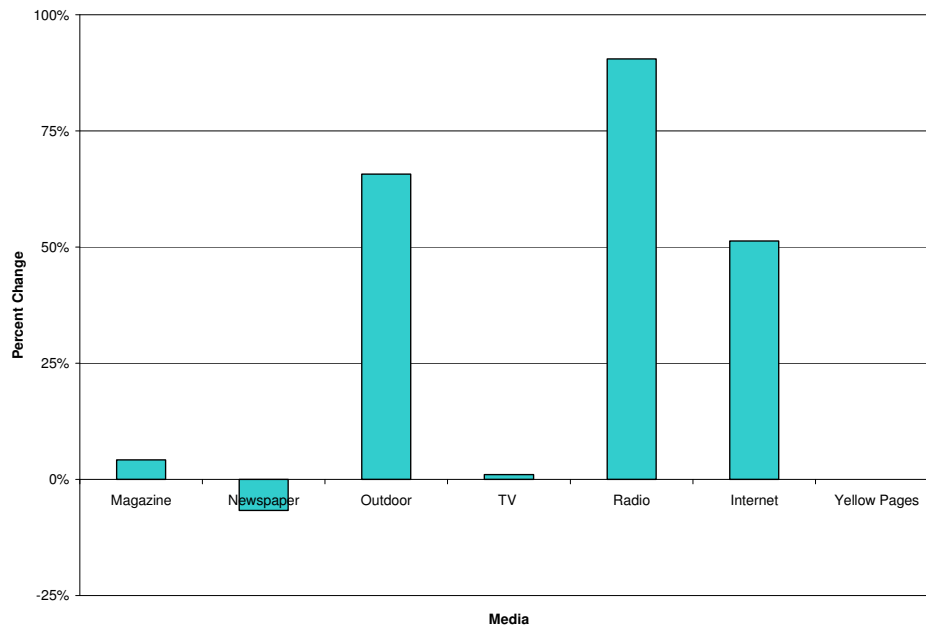


Figure 6. Motion picture industry: Percent change in advertising spending between 2003 and 2005

The leading national advertisers in the motion picture industry reduced their newspaper advertising by nearly 7%, while increasing their national advertising in every other media. Similar to the credit card industry, these companies did not nationally advertise in the Yellow Pages. Of the eleven industries that were researched, these were the only two that showed a decrease in advertising in media other than the Yellow Pages.

The heptagonal graph shown in Figure 7 presents the overall percent growth of each advertising medium between 2003 and 2005 among leading national advertisers. The red heptagon near the center of the figure denotes a 0% change. Any figures inside the red-lined center are representative of a negative change.

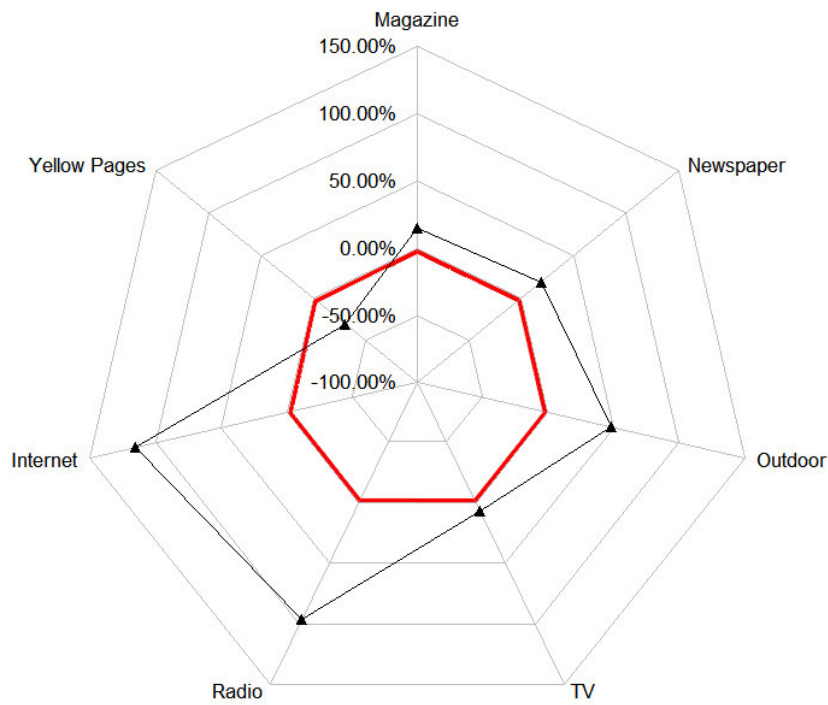
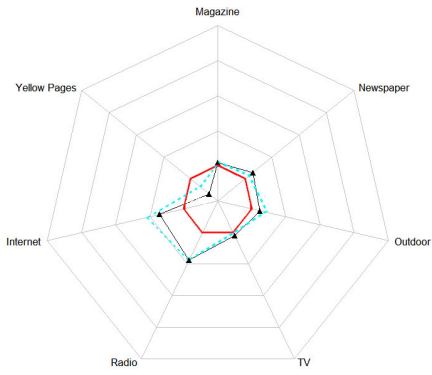
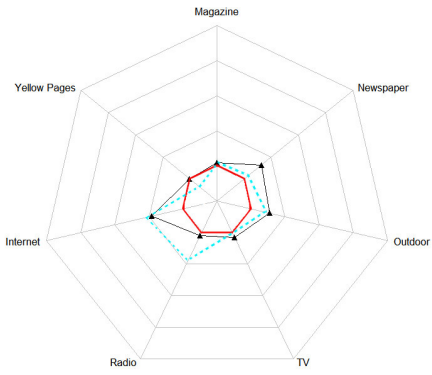


Figure 7. Change in spending in media for all industries combined

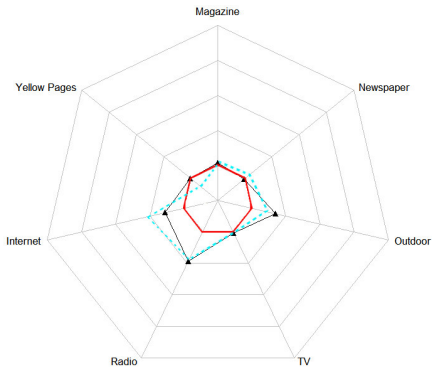
Using this figure as a reference, individual industries were analyzed to see how each compared to the group as a whole. Figures 8a-f shows a representation of six of the industries and the percent change in spending they had for each medium. There is a light blue dotted line within each graph that is representative of the overall change in spending as shown in Figure 7. Again, any figures inside the red heptagon at the center are representative of a negative change.



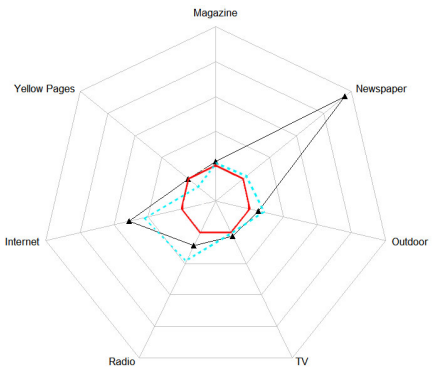
a) Automotive Manufacturers



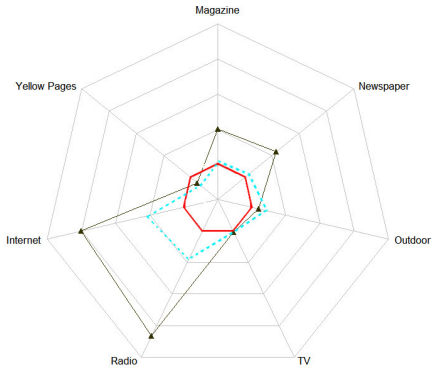
b) Pharmaceutical Manufacturers



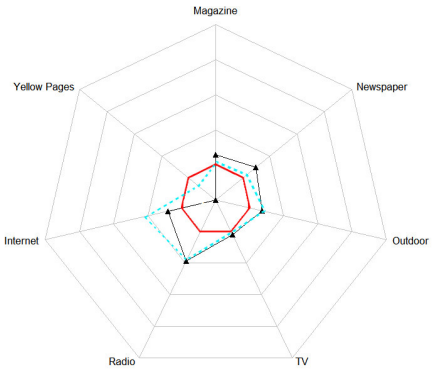
c) Motion Picture Industry



d) Household Cleaners



e) Fast Food Industry



f) Department Stores

Figure 8a-f. Percent change in advertising spending from 2003 to 2005 by industry by medium

Among the two most highly represented industries, automotive (8a) and pharmaceutical (8b), there were less notable changes to their advertising spending. The graph of spending in the automotive industry relates most closely to the overall changes in advertising spending among leading national advertisers. Figure 8d shows that household cleaners closely represented the overall change in spending with the exception of newspaper advertising, where this industry increased its newspaper advertising spending by nearly 400%. Figure 8e shows that the fast food industry leaders significantly increased their Internet and radio advertising spending compared to other media and industries. For lists of the top 30 advertisers in each medium, refer to Appendix B.

Some of the other industries with notable findings were the soft drink, cereal, and computer manufacturers. Soft drink manufacturers increased overall radio advertising spending by more than 800%. PepsiCo had the largest change in spending, with \$13.6 million invested in 2003 and then \$120.6 million spent in 2005. Cereal manufacturers increased their newspaper advertising spending from \$1.5 million to \$74.2 million in 2005, 4700% increase. Finally, computer manufacturers Dell and HewlettPackard decreased their outdoor advertising spending by 90%, spending just \$200,000 on outdoor advertising in 2005.

Research Question 3

Has Internet advertising grown at the expense of other media?

Figure 9 shows the percent that each media contributed to the \$7.5 billion growth in advertising among leading national advertisers from 2003 and 2005. Yellow Pages advertising decreased, so it was not included in this pie chart.

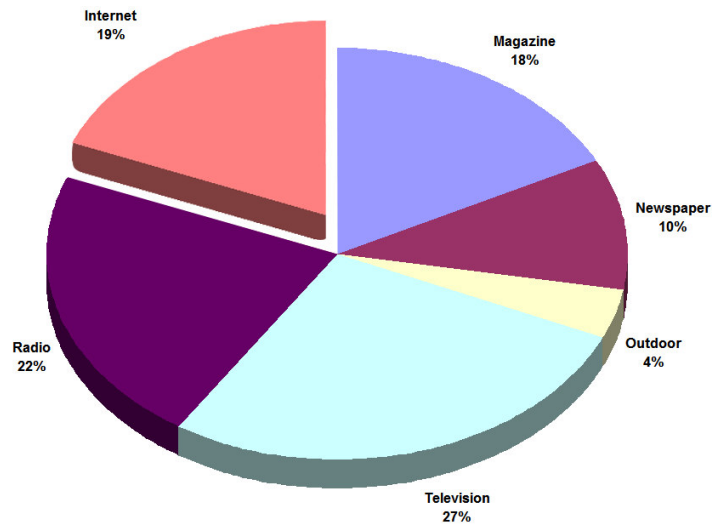


Figure 9. Percent contribution to growth between 2003 and 2005

Internet advertising expenditure contributed to 19% of that growth, making it the 3rd largest contributor. In order to further explore the increase in Internet advertising, it was explored by industry, as shown in Figure 11.

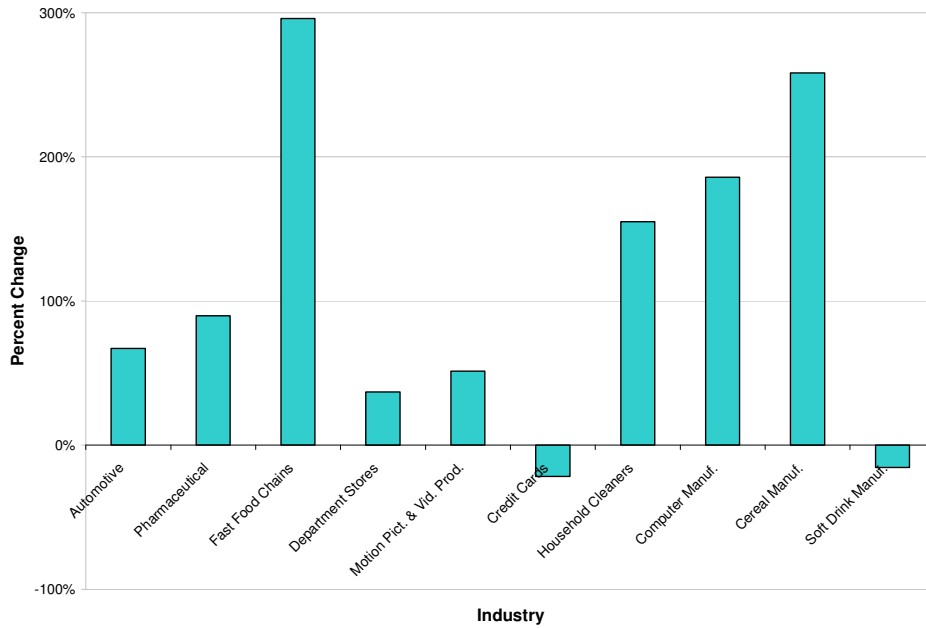


Figure 10. Percent change in Internet advertising spending between 2003 and 2005

Figure 10 shows that there was growth in Internet spending between 2003 and 2005 for more than 80% of the industries that were evaluated. While it has been proven that there is statistically significant growth in Internet advertising, initial results do not point to it coming at the expense of other media. Though Internet advertising was growing at a significant rate, Figure 9 indicated that spending on magazine, newspaper, outdoor, television, and radio advertising also increased.

Chapter 6

Conclusions

Research Question 1

Were there significant changes to the distribution of advertising spending by medium between 2003 and 2005?

Comparing the absolute changes in media expenditures between 2003 and 2005, the distribution of advertising spending had not changed dramatically. The top advertisers increased spending in all media with the exception of Yellow Pages. While a growth in Internet advertising was expected, the statistically significant growth in radio advertising came as a surprise. This growth may have been related to significant investment in radio on the part of the groups supporting high definition radio, such as the HD alliance, and other industry proponents, but it may have also come down to the fact that radio is a nice compliment to a well-rounded advertising campaign.

Research Question 2

Are there differences in media mix by industry of the advertiser?

The “radar” diagrams, as described by Microsoft Excel, shown in Figure 8a-f demonstrated that, between 2003 and 2005, each industry made changes to its media mix in a different way. In the case of cereal manufacturers in the leading national advertisers, they increased their national newspaper advertising spending from just over \$1 million to more than \$74 million. This was the most dramatic change among the industries that were reviewed in this study. It is another area to watch in future years to see how General Mills and Kellogg Corporation will change their advertising mix – newspaper advertising in particular.

Another interesting point was that Coca Cola and PepsiCo both increased their radio advertising more than 1000% in 2005. PepsiCo spent \$4.9 million in 2003 for radio advertising and then spent \$60.5 million in 2005. Coca Cola’s spending was similar, but slightly lower. What is peculiar is that each company has its own recipe for how it is going to communicate its national advertising message, yet for this one media channel, both companies chose to invest in radio ten fold of what they had invested just two years prior to that. It is clear that there are differences in how advertising dollars are spent depending on the industry, but there are also differences within each of these industries that suggest that each advertiser has a different idea of what the perfect “recipe” is for the success of their advertising campaigns.

Research Question 3

Has Internet advertising grown at the expense of other media?

Internet advertising among leading national advertisers is growing at a statistically significant rate. What is harder to determine is whether or not the growth in Internet advertising is coming at the expense of other media. Yellow Pages is the one medium that could be directly taking a loss due to increases in Internet advertising. As consumers progressively turn to the Internet, the trend is becoming to perform an Internet search for local and national businesses rather than to look for their printed Yellow Pages book. Because of this, advertisers may be taking money that would otherwise be allocated for Yellow Pages advertising and putting it into their Internet advertising budget.

One could also argue that the 4% drop in television advertising's proportion of the total advertising dollars spent in 2005, comparative to 2003, lends support to this conclusion. Advertisers are gaining a better understanding of the power of Internet advertising and the broad reach that it has. Moreover, the measurability of Internet advertising is unsurpassed by traditional advertising channels, making it that much more enticing to focus advertising dollars in that arena.

One individual case that may further support the notion that Internet advertising is growing at the expense of other media is the recent activity of GM's advertising spending. In an article from the February 12, 2007 publication of *Advertising Age*, there was a table showing the change in advertising spending for General Motors when

comparing January to November of 2005 to the same period in 2006. The data has been reconstructed in Table 10.

Table 10. GM's U.S. ad-spending by medium (\$ in millions)

Media	Jan.-Nov. 2006	Jan.-Nov. 2005	% Change
TV	\$1,228.9	\$1,448.0	-15.1%
Magazine	364.5	441.5	-17.4%
Newspaper	196.3	527.6	-62.8%
Internet	110.5	92.6	19.4%
Radio	93.8	106.5	-11.8%
Outdoor	32	37.2	-14.0%
Total	2,026.0	2,653.3	-23.6%

Comparative to the same time period in 2005, GM has reduced its national advertising in these media by more than \$600 million. The point of interest is that only one media channel in this list grew, and that was Internet advertising. With the second-largest advertiser making a statement like this about its media mix, it may further support the notion that Internet advertising is, in fact, coming at the expense of other media.

Closing Note

The advertising industry is an intriguing area for study because of the number of different strategies that seem to work. There is no one right answer to what is going to make an advertiser successful. There may be media that work better than others as a means of conveying the desired message; however, it is difficult to find the right balance of advertising spending on each media. Advertisers find something that works, and then they try to work from that point and try to find something that works *better*. This process

becomes a constant chase, with each advertiser taking a slightly (or drastically) different approach. Consumer beware, because as technology continues to evolve, so will advertisers in an attempt to reach their ultimate goal – more money.

Agenda for Further Research

This study was intended to be the basis for future research. Future analysis of how these leading national advertisers continue to change their media mixes will have a starting point to refer back to because of this research. The researcher would like to see someone take on the task of following a similar methodology with the 2004 and 2006 “100 Leading National Advertisers” lists. In doing this, the change in advertising spending could be tracked for each year from 2003 to 2006 and new trends may emerge.

Following up with future data will give a much more complete picture of the trends that are taking place in the advertising industry. There is also room to break down radio advertising into AM/FM and satellite, as well as break television advertising down into cable and network. These data were not immediately available in doing this study; however, it might help to show that growth in radio is in a specific type of radio versus overall growth. The same type of study could be done for television advertising.

In terms of the question regarding Internet advertising coming at the expense of Yellow Pages advertising, it would be interesting to survey the marketing departments of these leading national advertisers to find out if they consider their approach as a reallocation of funds from Yellow Pages to Internet advertising. Along the same lines, it

would be interesting to do an in depth case study on the plight of the Yellow Pages and how their marketing teams plan on maintaining (or growing) their print presence.

As it was exploratory in nature, there are many directions that someone could take this project if the desire was to build upon existing research. With the amount of data presented, there are still more correlations to be made. If nothing else, this research should be updated when the next data set comes out to see if the Internet and radio continue to sustain growth and if Yellow Pages advertising is continuing to suffer losses.

There are many directions in which research on this topic could progress at this point. The researcher will leave the reader with this: If there is a question that you found has been left unanswered, explore it – not for me, but for you. When an answer is not readily available, there is nothing more fulfilling than searching for your own explanation to satisfy that thirst for knowledge.

Bibliography

Bibliography

- 2004 Marketing fact book. (2004, July 15). *Marketing News*, 38(12). Retrieved September 13, 2006, from Business Source Elite database.
- 2005 Marketing fact book. (2005, July 15). *Marketing News*, 39(12), 27. Retrieved September 27, 2006, from Business Source Elite database.
- A powerful one-two punch: How print and online catalogs complement each other [Special section]. (n.d.). *Maritz Rewards*, 1-4.
- Accountability: A guide to measuring ROI and ROO across media. (n.d.). *Magazine Publishers of America*. Retrieved August 4, 2006, from <http://www.magazine.org/accountability>
- Advertising history timeline. (n.d.). *Advertising Age*. Retrieved October 1, 2006, from <http://adage.com/century/TIMELINE/index.html>
- Barber, M. (2004, October 14). Hope for radio as advertisers share the blame for sub-standard ads. *Marketing Week*, 20. Retrieved September 20, 2006, from Business Source Elite database.
- Beardi, C. (2000, October 16). E-commerce still favors traditional techniques. *Advertising Age*, 71(43). Retrieved October 2, 2006, from Business Source Elite database.
- Becker, A. (2006, August 14). Late to the party. *Broadcasting & Cable*, 10.
- Belson, K. (2007, January 4). With ad deal, insurer wades into bridge traffic. *New York Times*, pp. B1-B2. Retrieved January 30, 2007, from Academic Search Elite database.
- Brown, M. (2005). *Radio's ROI Advantage*. NY: Radio Ad Effectiveness Lab. Retrieved September 6, 2006, from <http://www.radioadlab.org>
- Bruner, R. E. (2005, April). *The decade in online advertising 1994-2004*. DoubleClick.com. Retrieved September 20, 2006, from Business Source Elite database.

- Cappo, J. (2003). *The future of advertising*. NY: McGraw-Hill.
- Digital audio radio service. (2000, November 22). *History of radio*. Retrieved October 4, 2006, from University of San Diego Web site: <http://history.sandiego.edu/gen/recording/dars.html>
- Editions & rates. (2005, December 12). *Time*. Retrieved October 4, 2006, from Time Magazine Web site: <http://www.time.com/time/mediakit/editions/national/index.html>
- Elms, S. (2004, August 26). The best advertising players will find a way to beat PVR skippers. *Marketing Week*, 18. Retrieved September 20, 2006, from Business Source Elite database.
- E-page program. (2005). *The Wall Street Journal Advertising Information*. Retrieved September 27, 2006, from The Wall Street Journal Web site: <http://advertising.wsj.com/both/epage.html>
- Fonda, D. (2004, April 19). The revolution in radio. *Time*, 163(16), 55-56. Retrieved January 30, 2007, from Academic Search Elite database.
- Graff, G., Yorke, J., & Al, P. (2006, December 23). The year radio woke up. *Billboard*, 118(51), 26. Retrieved January 30, 2007, from Academic Search Elite database.
- Iwanowski, J. (1996, January). Billboard advertising can prompt customers to pull off the highway and into your restaurant parking lot. In *Restaurants USA*. Retrieved September 25, 2006, from Restaurants USA Web site: <http://www.restaurants.org/rusa/magArticle.cfm?ArticleID=595>
- Kanso, A. M., & Nelson, R. A. (2004, December). Internet and magazine advertising: Integrated partnerships or not? *Journal of Advertising Research*, 317-326.
- Klaassen, A., & Kerwin, A. M. (2005, June 13). Radio compares itself to TV, and decides it's better on ROI. *Advertising Age*, 76(24), 39. Retrieved September 20, 2006, from Business Source Elite database.
- Leonard, D. (2006, September 4). When is a click not a click? *Fortune*, 154(5), 53-54. Retrieved September 21, 2006, from Business Source Elite database.
- Lewis, H. G. (2006, April 1). Is this really a catalog? In *Multichannel Merchant*. Retrieved April 8, 2006, from <http://www.printthis.clickability.com>
- Lindsay, G. (2006, January 2). One consumer at a time. *Advertising Age*, 77(1), 22-23.

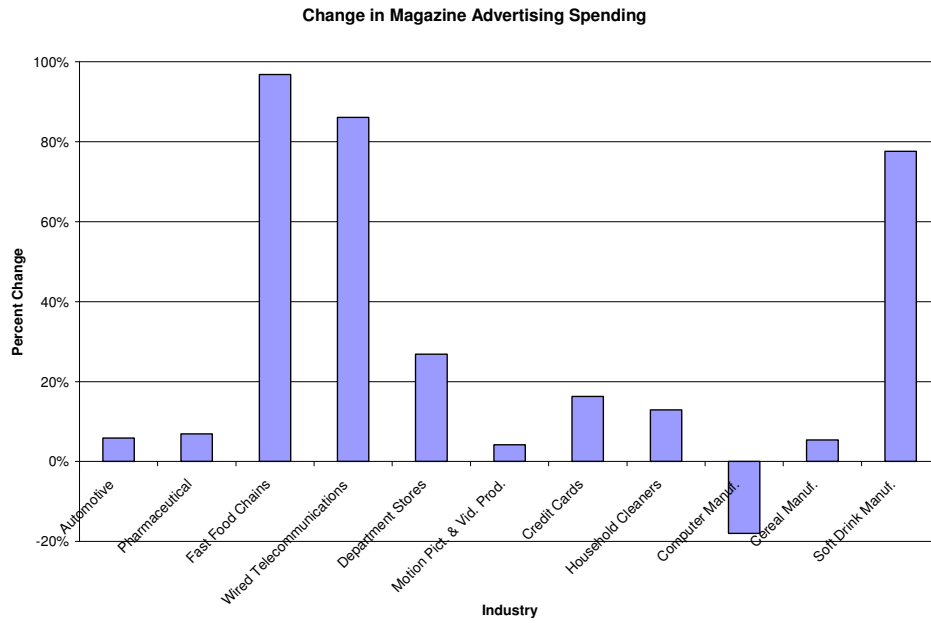
- The lowdown on newspaper advertising. (n.d.). *Advertising - Newspaper Advertising*. Retrieved October 5, 2006, from BusinessTown.com Web site: <http://www.businesstown.com/advertising/newspaper-overview.asp>
- Maddox, K. (2006, August 14). Search spending tops in online. *B to B*, 91(10), 13. Retrieved September 21, 2006, from Business Source Elite database.
- Mandese, J. (2005, June 27). P&G's ominous 15% solution. *Broadcasting & Cable*, 16. Retrieved September 21, 2006, from Business Source Elite database.
- Mullaney, T. J. (2006, September 18). Ads follow home buyers to the web. *Business Week*, (4001), 9. Retrieved September 21, 2006, from Business Source Elite database.
- 'NY Times' to cut 250 jobs -- and page size. (2006, July 18). *Editor & Publisher*. Retrieved October 4, 2006, from http://www.editorandpublisher.com/eandp/news/article_display.jsp?vnu_content_id=1002840912
- On the radio. (2000, January). *Workforce*, 79(1), 24. Retrieved October 2, 2006, from Business Source Elite database.
- Outdoor Advertising Association of America, Inc. (2006). Retrieved September 27, 2006, from Outdoor Advertising Association of America, Inc. Web site: <http://www.oaaa.org>
- Quirin, C. (2005, February 21). Must-see messages. *Mediaweek*, 15(8), 12. Retrieved October 2, 2006, from Proquest Direct database.
- Radio golden age 1935-50. (n.d.). *Radio history*. Retrieved October 2, 2006, from <http://history.sandiego.edu/gen/recording/radio-television0.html>
- Spot Runner*. (2006, October 4). Retrieved October 4, 2006, from http://spotrunner.reachlocal.com/coupon/?scid=172380&cid=36992&tc=06100411131368820&kw=1658495&dynamic_poxy=1&primary_serv=spotrunner
- Story, L. (2007, January 11). Digital billboard up ahead: New-wave sign or hazard? *New York Times*, pp. C1-C9. Retrieved January 30, 2007, from Academic Search Elite database.
- Vakratsas, D., & Ma, Z. (2005, June). A look at the long-run effectiveness of multimedia advertising and its implications for budget allocation decisions. *Journal of Advertising Research*, 241-254.

- Veronis, Suhler, & Stevenson. (2004). Communications Industry Forecast/Forecast Summary 2005. Retrieved May 13, 2006, from <https://www.vss.com/> (Reg. Required)
- Veronis, Suhler, & Stevenson. (2005). *Communications Industry Summary Chapter 2004*. Retrieved May, 2006, from <https://www.vss.com/orderform/registration.asp>
- Vranica, S. (2006, October 4). Ad buyers eye Clear Channel's 'blink' radio. *Northwest Florida Daily News*. Retrieved October 4, 2006, from The Wall Street Journal Web site: <http://www.nwfdailynews.com/articleArchive/oct2006/clearchannelblinkradiospots.php>
- Wells, W., Burnett, J., & Moriarty, S. (1995). *Advertising Principles and Practice* (3rd ed.). Englewood Cliffs, New Jersey: Prentice Hall. (Original work published 1989)
- Who can spell relief? (2004, July 12). *Marketing*, 109(24), 10. Retrieved September 20, 2006, from ProQuest Direct database.

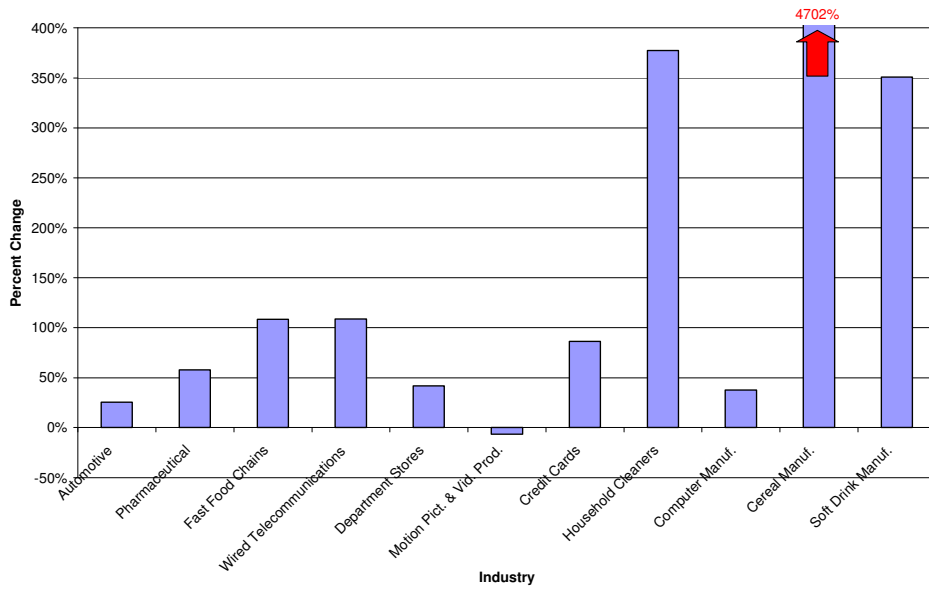
Appendix A

Percent Change in Spending by Industry

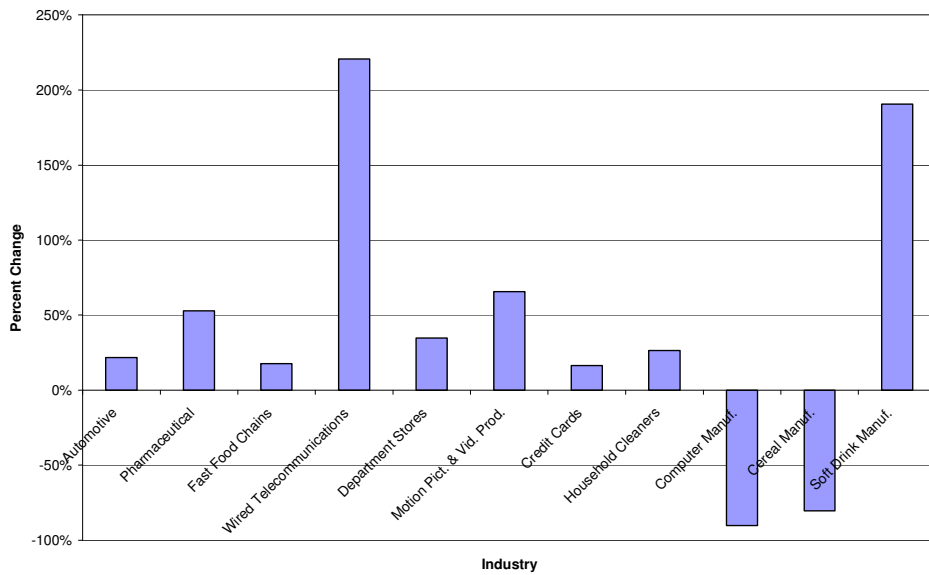
Appendix A



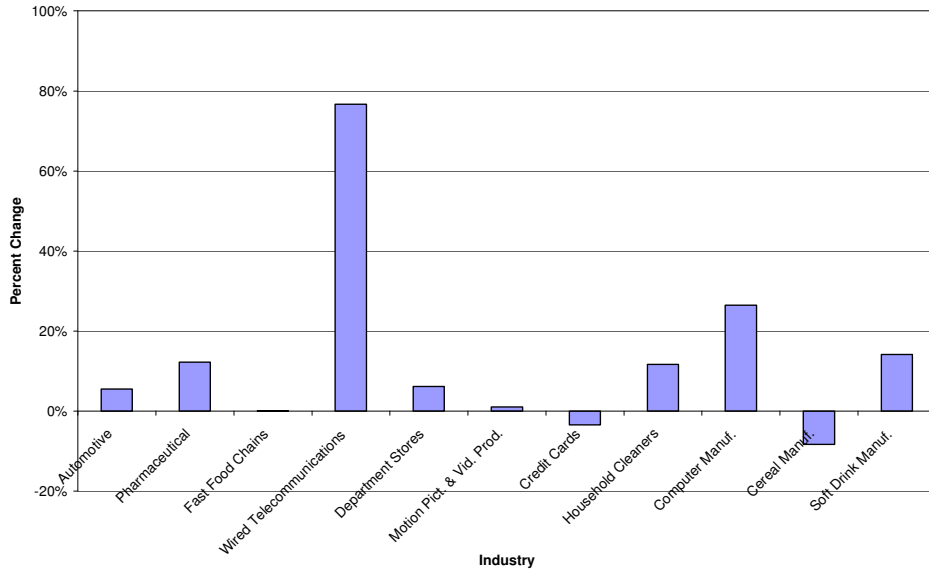
Change in Newspaper Advertising Spending



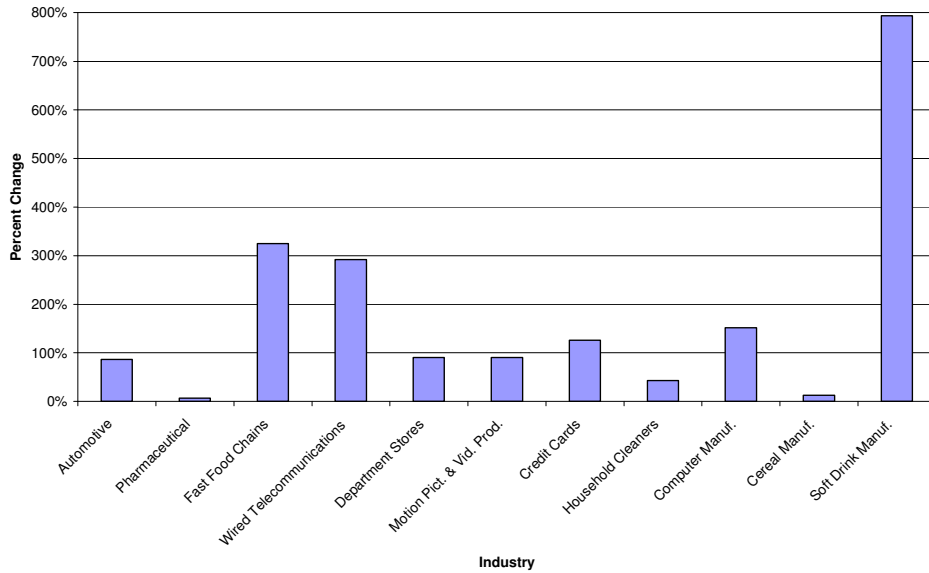
Change in Outdoor Advertising Spending



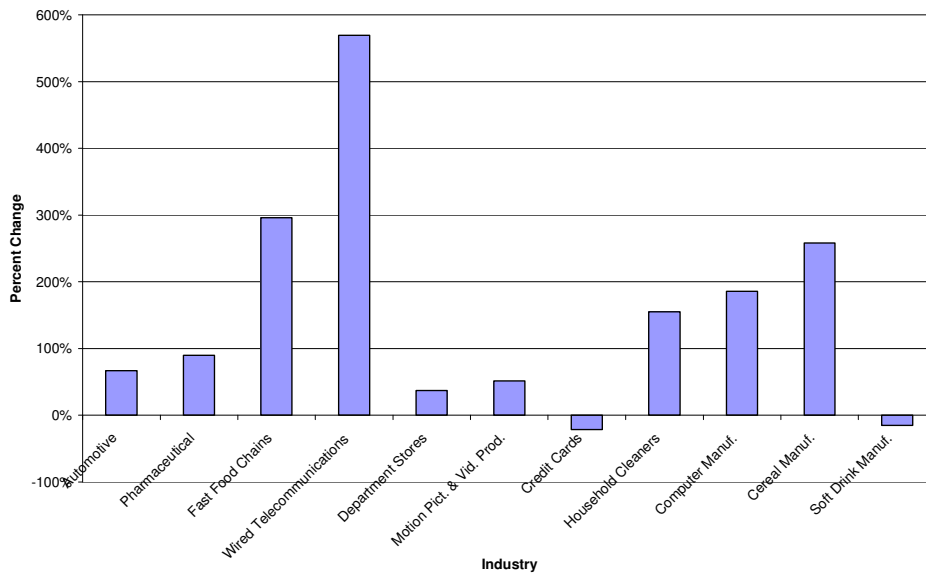
Change in Television Advertising Spending



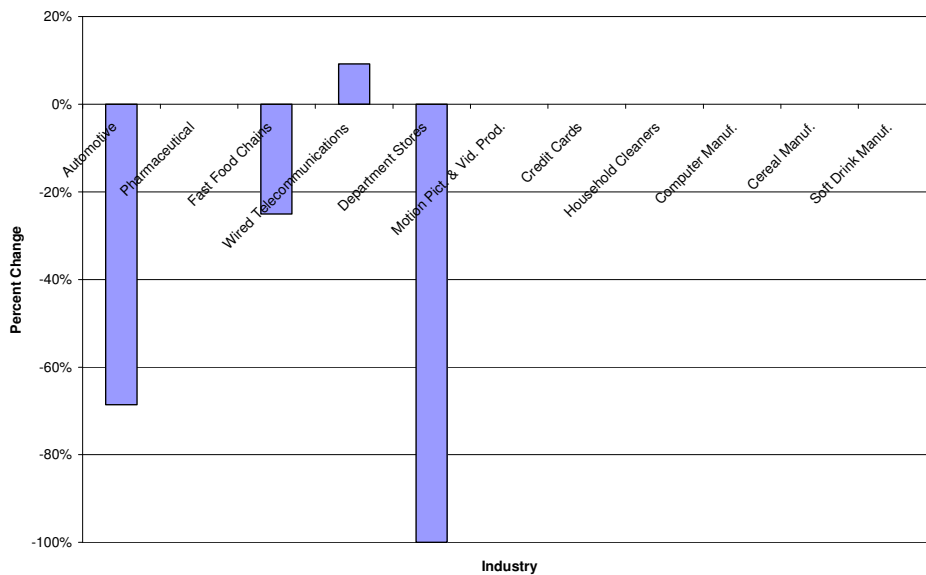
Change in Radio Advertising Spending



Change in Internet Advertising Spending



Change in Yellow Pages Advertising Spending



Appendix B

List of Top 30 Advertisers by Medium

Appendix B

Newspaper	
Top 30 Advertisers by Expenditure	
2003	2005
1 Verizon Communications	Federated Department Stores
2 AT&T Wireless	AT&T
3 Federated Department Stores	Verizon Communication
4 Sprint Corp.	General Motors Corp
5 SBS Communications	Sprint Nextel Corp
6 May Department Stores Co.	Time Warner
7 Time Warner	Sears Holdings Corp.
8 Walt Disney Co.	DaimlerChrysler
9 General Motors Corp.	Walt Disney co.
10 DaimlerChrysler	General Electric Co.
11 Target Corp.	Deutsche Telekom
12 Ford Motor Co.	Ford Motor Co.
13 Viacom	Dell
14 Sony Corp.	Procter & Gamble co.
15 News Corp.	Target Corp.
16 General Electric Co.	News Corp.
17 Deutsche Telekom	Sony Corp.
18 Nextel Communications	Viacom
19 Best Buy Co.	J.C. Penny Co.
20 Sears. Roebuck & Co.	Kohl's Corp
21 J.C. Penney Co.	Best Buy co.
22 Hewlett-Packard Co.	J.P. Morgan Chase & Co.
23 Home Depot	Citigroup
24 Kmart Corp.	Home Depot
25 Kohl's Corp.	American Express Co.
26 Dell	Kroger Co.
27 Toyota Motor Corp.	Hewlett-Packard Co.
28 Kroger Co.	Lowe's Cos
29 IBM Corp.	Comcast Corp.
30 American Express Co.	Circuit City Stores

Magazine		
Top 30 Advertisers by Expenditure		
	2003	2005
1	Procter & Gamble Co.	Procter & Gamble Co.
2	General Motors Corp.	Altria group
3	Altria	General Motors Corp
4	Johnson & Johnson	Johnson & Johnson
5	Time Warner	Time Warner
6	DaimlerChrysler	L'Oreal
7	Ford Motor Co.	Ford Motor Co.
8	L'Oreal	DaimlerChrysler
9	Toyota Motor Corp.	GlaxoSmithKline
10	Pfizer	Unilever
11	Nissan Motor Co.	Pfizer
12	Microsoft Corp.	Toyota Motor Corp.
13	Hewlett-Packard Co.	Clorox Co.
14	Clorox Co.	Nissan Motor Co.
15	IBM Corp.	Microsoft Corp
16	GlaxoSmithKline	PepsiCo
17	Walt Disney Co.	Walt Disney Co.
18	Dell	Dell
19	Merck & Co.	Citigroup
20	Viacom	AstraZeneca
21	U.S. Government	American Express Co.
22	Nestle	Honda Motor Co.
23	Sony Corp.	U.S. Government
24	General Electric Co.	General Electric Co.
25	Unilever	Estee Lauder Cos.
26	Honda Motor Co.	Sony Corp.
27	Estee Lauder Cos.	Kimberly-Clark Corp.
28	Reckitt Benckiser	Hewlett-Packard Co.
29	PepsiCo	Viacom
30	AstraZeneca	Nestle

Outdoor		
Top 30 Advertisers by Expenditure		
	2003	2005
1	Anheuser-Busch Cos.	Time Warner
2	McDonald's Corp.	AT&T
3	Time Warner	Verizon Communication
4	General Motors Corp.	General Motors Corp
5	Nissan Motor Co.	McDonald's Corp
6	Walt Disney Co.	Anheuser-Busch cos.
7	Verizon Communications	Walt Disney co.
8	SABMiller	General Electric Co.
9	Cendant Corp.	Viacom
10	Diageo	Sprint Nextel Corp
11	Viacom	Coca-Cola Co.
12	Nextel Communications	Molson Coors Brewing Co.
13	DaimlerChrysler	SABMiller
14	Toyota Motor Corp.	Nissan Motor Co.
15	General Electric Co.	Ford Motor Co.
16	AT&T Wireless	News Corp.
17	News Corp.	Sony Corp.
18	Sony Corp.	Cendant corp.
19	Ford Motor Co.	Berkshire Hathaway
20	Citigroup	State Farm Mutual Auto Insurance Co.
21	Gap Inc.	Diageo
22	Adolph Coors Co.	Citigroup
23	American Express Co.	Toyota Motor Corp.
24	SBS Communications	PepsiCo
25	Coca-Cola Co.	J.P. Morgan Chase & Co.
26	Wendy's International	Unilever
27	U.S. Government	Comcast Corp.
28	Yum Brands	Bank of America corp.
29	Target Corp.	DaimlerChrysler
30	Procter & Gamble Co.	Target Corp.

Television		
Top 30 Advertisers by Expenditure		
	2003	2005
1	Procter & Gamble Co.	Procter & Gamble Co.
2	General Motors Corp.	General Motors Corp
3	DaimlerChrysler	DaimlerChrysler
4	Time Warner	Time Warner
5	Johnson & Johnson	Ford Motor Co.
6	Ford Motor Co.	Johnson & Johnson
7	Walt Disney Co.	GlaxoSmithkline
8	PepsiCo	PepsiCo
9	Pfizer	Walt Disney co.
10	Sony Corp.	Toyota Motor Corp.
11	Nissan Motor Co.	Nissan Motor Co.
12	Yum Brands	Yum Brands
13	Toyota Motor Corp.	Verizon Communication
14	General Mills	AT&T
15	McDonald's Corp.	Honda Motor Co.
16	Altria	Sony Corp.
17	Honda Motor Co.	Altria group
18	GlaxoSmithKline	General Electric Co.
19	Sears. Roebuck & Co.	McDonald's Corp
20	Verizon Communications	Sprint Nextel Corp
21	Unilever	Pfizer
22	News Corp.	Sears Holdings Corp.
23	Wal-Mart Stores	Viacom
24	U.S. Government	Anheuser-Busch cos.
25	SBS Communications	Unilever
26	General Electric Co.	Wal-Mart Stores
27	Viacom	News Corp.
28	Nestle	General Mills
29	L'Oreal	U.S. Government
30	MCI	L'Oreal

Radio	
Top 30 Advertisers by Expenditure	
2003	2005
1 Albertson's	AT&T
2 SBS Communications	Verizon Communication
3 Home Depot	News Corp.
4 Time Warner	Walt Disney co.
5 Verizon Communications	Time Warner
6 News Corp.	General Electric Co.
7 Viacom	Home Depot
8 General Motors Corp.	General Motors Corp
9 Safeway	Safeway
10 General Electric Co.	Berkshire Hathaway
11 AT&T Wireless	Viacom
12 Procter & Gamble Co.	McDonald's Corp
13 Berkshire Hathaway	Federated Department Stores
14 J.C. Penney Co.	Lowe's Cos
15 Ford Motor Co.	PepsiCo
16 InterActiveCorp	U.S. Government
17 Pfizer	Sprint Nextel Corp
18 DaimlerChrysler	Supervalu
19 Kohl's Corp.	Comcast Corp.
20 Johnson & Johnson	Procter & Gamble co.
21 U.S. Government	Coca-Cola Co.
22 Wyeth	United Parcel Service
23 BellSouth Corp.	Bank of America corp.
24 Sears. Roebuck & Co.	Ford Motor Co.
25 Lowe's Cos.	Kohl's Corp
26 American Express Co.	Allstate Corp
27 Altria	DaimlerChrysler
28 Burger King Corp.	J.C. Penny Co.
29 United Parcel Service	Sony Corp.
30 Sony Corp.	Anheuser-Busch cos.

Internet	
Top 30 Advertisers by Expenditure	
2003	2005
1 Time Warner	Vonage Holdings corp.
2 InterActiveCorp	Time Warner
3 Dell	Dell
4 General Motors Corp.	Verizon Communication
5 Toyota Motor Corp.	TD Ameritrade Holding Corp.
6 Microsoft Corp.	General Motors Corp
7 Hewlett-Packard Co.	Hewlett-Packard Co.
8 General Electric Co.	Microsoft Corp
9 Citigroup	Walt Disney co.
10 Philips Electronics	AT&T
11 Visa International	Ford Motor Co.
12 Walt Disney Co.	Cendant corp.
13 Altria	Nestle
14 Sony Corp.	Circuit City Stores
15 PepsiCo	News Corp.
16 Ford Motor Co.	Sony Corp.
17 DaimlerChrysler	Target Corp.
18 J.C. Penney Co.	General Electric Co.
19 Verizon Communications	Viacom
20 Viacom	Wal-Mart Stores
21 News Corp.	Citigroup
22 Best Buy Co.	Procter & Gamble Co.
23 Nestle	Capital One Financial Grp.
24 AstraZeneca	Toyota Motor Corp.
25 SABMiller	J.C. Penny Co.
26 AT&T Wireless	DaimlerChrysler
27 Sears. Roebuck & Co.	J.P. Morgan Chase & Co.
28 American Express Co.	U.S. Government
29 GlaxoSmithKline	American Express Co.
30 Target Corp.	Sprint Nextel Corp

Yellow Pages		
Top 30 Advertisers by Expenditure		
	2003	2005
1	General Motors Corp.	State Farm Mutual Auto Insurance Co.
2	Cendant Corp.	Ford Motor Co.
3	Ford Motor Co.	Verizon Communication
4	Sears. Roebuck & Co.	AT&T
5	Verizon Communications	Honda Motor Co.
6	DaimlerChrysler	Cendant corp.
7	AT&T Corp	Sprint Nextel Corp
8	Home Depot	United Parcel Service
9	Yum Brands	Home Depot
10	SBS Communications	Yum Brands
11	General Electric Co.	Deutsche Telekom
12	BellSouth Corp.	General Electric Co.
13	United Parcel Service	Wal-Mart Stores
14	Deutsche Telekom	
15	Wal-Mart Stores	