

THE ROLE OF BILLBOARDS IN THE U.S. ECONOMY

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A Report on the Uses of Billboards by U.S. Businesses
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EXECUTIVE SUMMARY

This report presents the findings of a national survey of billboard users. The study was scientifically designed so that the sample would be representative of the nation's billboard users. A mix of a wide range of types of businesses was present in the sample. Statistical analysis was applied in order to draw conclusions.

The study is designed to give insight on several issues pertaining to billboard advertising. These issues are: 1) whether businesses who use billboards would lose sales if billboards were banned; 2) whether billboards provide value to consumers and businesses; and 3) whether viable and cost-effective alternatives to billboards exist.

On the issue of lost sales, a substantial majority of the respondents reported that they will lose sales if they do not have access to billboards. More than three quarters of the businesses surveyed indicated that they would lose sales if billboards are banned. The average estimate of lost sales among these businesses was strikingly high at over 18%. This level of sales loss simply cannot be sustained by most businesses and it would be particularly devastating to many small businesses.

On the second issue, the results of this study clearly demonstrate that billboards provide value to both consumers and businesses who use billboards. Billboards include a wide variety of information that is helpful to consumers who reside in an area as well as to those visiting and passing through.

Information on the location of the business, the products and/or services offered, prices, quality and convenience of offerings are commonly communicated on billboards. This finding is consistent with prior content analysis research that has found that billboards are an information rich medium and with surveys that indicate that motorists view billboards as a valuable source of information (Taylor 1997; U.S. Travel Data Center 1991).

The information provision function of billboards is also very important to businesses. The respondents clearly indicate that the medium has unique and important benefits that help their business. When asked about various media's ability to communicate information to consumers at an affordable price, the companies rated billboards considerably higher than any other medium. Additionally, respondents cited the ability to reach a local trade area as a major advantage of billboards. These perceptions are consistent with academic discussions of advertising which state that key advantages of billboards include their low cost and their ability to reach a geographically targeted audience (Arens 1999). Such advantages are often critical to both retail businesses that serve a local market (e.g., restaurants, retail stores, banks, hospitals) and travel related businesses (gas stations, tourist attractions, hotels).

The findings on the third issue, the availability of alternatives to billboards for businesses who use the medium, paint a stark picture. The respondents to the survey resoundingly indicate that on-premise signs do not serve the same function as their billboards. Additionally the respondents make it clear that other media, including television, radio,

newspaper, magazines, flyers, and the internet are not substitutes for their billboards. This finding was especially pronounced among small businesses. When asked to rate various media in terms of its ability to bring in new customers, the billboard users surveyed rated billboards considerably higher than any alternative. Similarly, billboards were rated highest in terms of their ability to increase sales.

Summary of Key Findings

- More than three quarters (76.9%) of the businesses sampled report that they would lose sales if they did not have access to billboards.
- Of those businesses reporting that sales would decrease, the average estimated decrease in sales is 18%. For all businesses included in the study, the average estimated sales decrease is 14.5%.
- As an advertising medium, the businesses surveyed report that billboards have unique advantages that cannot be duplicated by other media alternatives. Additionally, no other medium was found to be a close substitute for billboards.
- Respondents rated billboards substantially higher than any other advertising medium in terms of its “ability to communicate information at a price you can afford.”
- Respondents overwhelmingly indicated that billboards serve a different function than their on-premise sign.
- Billboard users use the medium to provide a variety of types of information to consumers.
- Both large and small businesses who use billboards report that restrictive regulations would be damaging to their business. However, the impact of restrictive regulations would have an even more adverse effect on small businesses than on large businesses.

INTRODUCTION

This report is based on the results of a national survey of billboard users conducted in the year 2000. The study was designed to add insight on specific issues relevant to the public policy debate concerning billboards. A first issue relates to the value of billboards. Some have argued that billboards do not provide substantial benefits to society and are an unnecessary intrusion on scenery. Others counter that billboards are important to many businesses and consumers. This study provides insight on this issue by examining the practices of billboard users.

A second issue is whether a ban on billboards would result in negative economic impact. A key question addressed is whether business who use billboards would lose sales if billboards were banned. A third and related issue is whether there are cost-effective alternatives available to billboard users. Some have proposed that other media or on-premise signs might be viable alternatives to billboards. If this were in fact true, a stronger case for restrictive regulation could be made.

To address the above issues, the following research questions are posed:

- 1) What types of information do businesses communicate to consumers via billboard advertising?
- 2) Why do businesses use billboards?
- 3) Can on-premise signs serve as a substitute for billboards?
- 4) Do billboard users have other media alternatives that offer the same benefits as billboards?
- 5) Will businesses lose sales if they lose access to billboards?

Methodology

The sampling frame was a national listing of more than five thousand companies who use billboards. The list was provided by the Outdoor Advertising Association of America. A total of 1315 companies were selected from the list using a simple random sampling technique. Each selected business was sent a cover letter requesting their participation in the survey along with the questionnaire and business reply envelope in early February 2000.

Confidentiality of individual responses was assured in the cover letter, and respondents were promised a summary report of the findings upon request. Five weeks after the initial mailing, a follow-up mailing was sent to those firms who had not responded to the initial mailing.

For the national sample, of the 1315 surveys sent, 168 were returned as undeliverable. Of the remaining 1,147 questionnaires, 351 responses were obtained for a response rate of

30.6%. Of these 351 responses, 19 were not usable, usually due to the respondent reporting that they have not used billboards in recent years.

Potential non response bias for the sample was assessed by comparing respondents to the first mailing with respondents to the second mailing in terms of: a) the number of employees who work for the organization; and b) the number of billboards they use. Differences were not statistically significant, indicating that non response bias based on these dimensions was not present in the sample. Additionally, follow up phone calls were made to a sample of non respondents. The calls indicated that the reasons for non response were not related to factors that could cause bias in the results.

Profile of Responding Businesses

Table 1 shows that respondents represented a wide range of lines of business. The top four categories in terms of representation are hotels, restaurants, retail stores and entertainment/tourism. In addition to these categories, respondents included businesses from the following areas: banking/insurance, gas stations, manufactured products, auto dealerships, real estate, and media.

Tables 2 and 3 show the number of years firms in the sample have been in business and have been using billboards, respectively. The median firm in the sample has been in business for between 11 and 25 years and has been using billboards for a slightly shorter period of time within the same 11-25 year range. Notably, over 75% of the firms surveyed have been in business for more than 10 years and nearly 41% for more than 25 years, indicating that most of the firms in the sample are well established.

Table 4 shows the breakdown of size of businesses included in the sample as measured by number of employees. As can be seen, the businesses in the sample represent a wide range of sizes. However, it is important to note that over half of the companies responding (50.2%) have 50 or fewer employees. Thus, small businesses are well represented in the sample. Moreover, as shown in Table 5, 48.3% of the respondents report using between one and four billboards, indicating that many of the businesses do not use huge numbers of billboards at the same time.

Results

Billboards and Information Provision -- The first major issue addressed by the survey has to do with the value of billboards to society. Critics of outdoor advertising have made the argument that billboards do not provide significant benefits. In assessing the value of billboards, it is important to examine why businesses use billboards. Prior research has made the argument that one important way in which billboards provide value is by allowing information to be communicated from businesses to consumers. In fact, the information provision function of billboards has been empirically verified by studies using content analysis methodology. These studies have found that billboards do, indeed, provide a variety of types of information that help consumers make purchase decisions (Taylor and Taylor 1994; Taylor 1997).

In examining the information provision function of billboards, it is important to examine managerial perceptions of what information they intend to include on the billboard. Thus, in this study, the extent to which businesses use outdoor advertising to communicate information to potential consumers was examined. To this end, the survey asked the businesses to indicate whether they typically include the following types of information in the copy of their advertising on billboards:

- Directions to place of business (or addresses of the business).
- Information on the product and/or services the business offers.
- Price of their products or services.
- A statement indicating that the business offers customers savings or value.
- A statement that the product or service is convenient (either to get to or to use).
- An explicit indication that the business offers quality products and/or services.

These information cues were drawn from an accepted coding scheme designed to measure the level of information content in advertising in various media (Taylor and Taylor 1994). Prior studies indicate that they are frequently present in the content of billboard advertising. Prior studies also show that several other types of information are also commonly communicated in billboards. However, only the above types of information cues were asked about in this survey.

The types of information contained on respondents' billboards are shown in Table 6. As can be seen, directions to the place of business are given by an overwhelming majority (82.8%) of the respondents. Information on the types of products and services the business offers is also very commonly provided, with more than 70% of the businesses indicating that they routinely include this cue on their billboard. Information on the quality of the products/services offered was the third most mentioned information cue at 32.6%. Cues related to convenience (21.5%); savings and value (20.2%); and prices (14.5%) were also cited by numerous respondents.

Finding: Billboards provide several types of information that can help consumers make purchase decisions.

Finding: Businesses use billboards to communicate information about the location of their business and the advantages of their products/services to the public.

It is particularly notable that billboards allow many businesses, including hotels, restaurants, and retail outlets to communicate how to get to the place of business. Clearly, the communication of this type of information provides a convenience to consumers who use the directions and to the business who benefits from increased visits to the place of business. Additionally, it is clear that many businesses use billboards to provide information that helps to differentiate their products and/or services from competitors, such as information on the quality or price of the offering. This information can clearly be valuable to consumers in making purchase decisions and to businesses in increasing sales.

Information communicated on billboards can be especially important to those passing through or visiting the area. The results of a 1991 survey conducted by the U.S. Travel Data Center clearly indicate that motorists, by a large majority, find billboards to be helpful in locating services such as hotels, restaurants, gas stations, tourist attractions, and retail stores.

The data shown in Table 6 demonstrates that billboards provide information that is helpful to consumers. The information provision function of billboards is also extremely important to businesses in giving directions and differentiating their product offering from competitors. Thus, the data provides strong evidence refuting the notion that billboards provide nothing of value to society.

Why Businesses Use Billboards

The survey included two groups of questions that relate to the reasons why the respondents choose to use billboards. These questions were posed to further assess whether billboards provide something of value to businesses. The first question asked the respondent to indicate whether they agree with a series of statements based on their company's experience using billboards. Responses were recorded on a 7- point Likert scale ranging from "strongly disagree" to "strongly agree." The following statements were included:

- Billboards help us to attract new customers.
- Billboards allow us to communicate our messages to our consumers.
- Billboards allow us to reach consumers in our trade area (area where we draw most of our customers from) more efficiently.
- Billboards are cost effective compared to other media.
- Billboards serve a function that is different from that of our on-premise sign.

Table 7 shows that billboard users agree with each of the above statements. The mean rating for each of the five questions was more than five on the seven point scales, indicating agreement with the statement. The highest mean ratings were for billboards serving a different function than on-premise signs (6.15), the medium's ability to attract new customers (5.80), and the billboard's ability to communicate the firm's message to consumers (5.64).

Finding: Businesses use billboards because they allow them to attract new customers, communicate their message to consumers and to reach their trade area. The businesses surveyed also believe that billboards are cost-effective.

Finding: The respondents clearly indicate that on-premise signs do not serve the same function as their off-premise sign. Thus, a major reason why many businesses use billboards is that they know they can provide advantages that an on-premise sign cannot.

These results clearly indicate that businesses who use billboards perceive that the medium offers significant benefits and, hence, provide value to them.

The agreement with the statement that billboards allow the business to reach its trade area is especially interesting in that it is consistent with the fact that most billboard advertising is local in nature and that most billboard advertisers are small businesses (Lilley and DeFranco 1995). The findings of this study suggest that most billboard users see the ability to reach a localized market as a major advantage of billboards. As it is well documented that other media are not as efficient in reaching a localized trade area in comparison to billboards (Kotler 1997; Arens 1999), it would appear that billboard users are taking advantage of the medium's unique features.

The finding that billboard users strongly believe that the on-premise sign serves a function that is different from billboards is important in that it indicates that there are major flaws in the argument that an on-premise sign can be used to serve the same functions as a billboard. Moreover, this finding is wholly consistent with widely accepted principles of marketing that state that the primary purpose of the on-premise sign is to identify the store and enhancing store image (e.g., Pessemeir 1980; Lusch, Dunne and Gebhardt 1993; Berman and Evans 1998). This purpose is not consistent with communicating many of the types of information communicated in outdoor advertising. For example, billboards can provide directions to a business from locations that are not visible from the place of business. Many businesses that are not easily visible from major thoroughfares cannot use on-premise signs to provide directions to their location. Prior content analysis research also verifies that businesses use billboards for different purposes than their on-premise signs.

In order to further assess whether billboards provide unique advantages to businesses, respondents were asked to rate a series of media alternatives in terms of their ability to communicate information at a price the business can afford. As can be seen in Table 8, billboards, with a mean of 5.38, are rated substantially higher than any of the other alternatives. The next closest alternative is radio, which rank substantially lower, at 4.19, followed by local newspapers at 4.17. All other alternatives, including magazines, regional and national newspapers, flyers, local and national television had even lower mean ratings, indicating that the respondents do not agree with the statement.

Finding: By a wide margin, billboard users see billboards as the best medium for allowing them to communicate information about their products and services at a price they can afford.

The above finding provides evidence that billboard users perceive billboards to be a medium that has unique advantages. Combined with the finding on the ability to reach local trade areas, the above finding is also consistent with research that suggests that for many businesses, and small businesses in particular, billboards may often be the only cost-effective medium for reaching customers (Taylor, 1997). More evidence on this issue will be provided in subsequent sections.

The above findings provide clear evidence that billboards provide several key advantages to the businesses who use them. The finding on the role of on-premise signs suggests that they cannot be used as a substitute for billboards. To begin to address the issue of the economic impact of a ban on billboards, the following sections examine whether other media can provide the same benefits as billboards.

Are Substitutes for Billboards Available to Businesses?

Prior sections of this report have established that billboards provide benefits to U.S. residents and businesses. In examining the value of billboards to businesses, it is important to assess whether alternative media are available that can provide the same benefits as billboards. If substitutes are not available, a ban on billboards could seriously harm many businesses.

As noted above, it is clear that a strong majority of billboard users do not believe that other media alternatives allow them to communicate their messages at an affordable cost. To examine the issue of whether other media can serve as a substitute for billboards more broadly, two additional sets of questions were asked. The text of the first of these read as follows:

Please indicate the level to which each of the following options serve as a close substitute for billboards. Consider the objectives you typically try to achieve through outdoor advertising and then base your answer on the ability of each option's effectiveness in achieving the same objectives at a similar cost.

Table 9 shows the results for the extent to which each alternative was rated to be a close substitute for billboards. Ratings for all of the alternative media were below four, which was the neutral point on the scale, indicating that the respondents do not believe that any of these alternatives are a close substitute for billboards. The highest rated alternative is local television (3.63), followed by radio (3.59), and local newspapers (3.57). Flyers, the internet, national television, magazines, and regional and national newspapers.

The second set of questions aimed at determining whether businesses have viable alternatives to billboards asked the businesses to compare billboards with other media in terms of: 1) Its ability to bring new customers to the place of business; and 2) Its ability to increase sales of the business.

Table 10 shows that, by a wide margin, the businesses surveyed rated billboards as superior to other media both in terms of their ability to bring new customers to their business and their ability to increase the business' sales. On the "bringing new customers" item, billboards were rated 5.43 on a seven-point scale. The next closest medium was local television, which was rated at 3.96, below the midpoint of the scale. In terms of ability to increase the business' sales, billboards again were rated first by a wide margin, at 5.18, followed by local television at 3.89, radio at 3.68, and local newspapers at 3.63.

Finding: Billboard users indicate that other media vehicles are not substitutes for billboards.

Finding: On average, billboard users believe that billboards are more effective in attracting new customers than are other media.

Finding: On average, billboard users believe that billboards are more effective in attracting new customers and increasing sales than are other media.

These findings are consistent with marketing and advertising textbook discussions of the characteristics of outdoor advertising. Billboards are a low-cost medium that is especially effective in providing high reach and frequency in a localized trade area (McCann and Russell 1988; King and Tinkham 1990; Kotler 1991). Reach is defined by media planners as the number of people in the target audience exposed to the message. Frequency is defined as the average number of times a member of the target audience is exposed to the message. Because of these advantages, media planning measures show that billboards are the lowest cost medium on a cost per thousand exposures basis (Arens 1999; Shimp 1997). This advantage is important in many contexts, but can be critical for two types of businesses: 1) retail and service businesses who serve local trade areas; and 2) travel and tourism related businesses who rely on motorists passing through the area. Not coincidentally, businesses in these categories are the heaviest users of billboards.

The efficiency of billboards in serving a local area at a low cost is especially critical for many small businesses who cannot afford other, more expensive, media. Newspapers, radio, and television involve both much higher CPMs (cost per thousand exposures to the target audience) and waste circulation (people exposed to the ad who are not in the target audience). This means that ads placed in this media are associated with a higher average cost of reaching one thousand viewers and that many people who see the ad are not potential customers (Arens 1999; Otter 1997). Additionally, production costs associated with developing billboards are generally substantially lower than traditional media such as magazines, radio, and television.

Since the above evidence demonstrates that billboard users realize unique benefits that cannot be duplicated by other alternatives, the value of billboards to business is apparent. Thus, arguments that billboards provide nothing of value or are merely aesthetically displeasing structures with no redeeming qualities are not supported by the evidence.

Economic Impact of a Ban on Billboards

The above findings indicate that other media alternatives are not substitutes for billboards. These findings alone suggest that there would be a substantial negative impact on many businesses if billboards were banned. To provide a more precise estimate of the loss, however, a question more directly addressing economic loss was posed to the surveyed companies. Specifically, the businesses were asked the following question:

If new government regulations banned billboard advertising in your area, what impact, if any, would that have on your company's sales? If you believe a decrease or increase would result, please provide an estimate of the percentage of lost or gained sales.

Table 11 shows that 76.9% of the respondents indicated that they would lose sales if billboard advertising was banned while 23.1% replied that sales would stay the same. None of the respondents believed that their sales would increase as a result of a billboard ban. Among those respondents indicating that a loss in sales would occur, the average estimate of lost sales was 18.0%. For the entire sample, including those indicating that no loss of sales would take place, the average estimated decrease in sales was 14.5%.

Finding: More than three quarters of billboard users indicate that they would lose sales if billboards were banned. The average estimated loss in sales for these businesses is 18.0%.

Finding: For the entire set of respondents, the average estimated decrease in sales as a result of a ban on billboards is 14.5%.

These findings leave little doubt as to the damaging impact that strict restrictions on billboards would have on many businesses. Many businesses simply would not remain profitable if they were to lose more than 10 percent of their sales. Businesses of all sizes are likely to be affected, as the research presented in this report indicates that billboard users perceive and recognize that billboards have unique advantages that cannot be duplicated by other media. However, the impact on a ban on many small businesses would be particularly devastating, since they would often simply have no affordable alternative to billboards. The next section explores this issue in more depth.

Billboards and Small Business

In order to examine whether billboards are of differential importance to small business, some additional analyses were performed. For purposes of these analyses, business with less than 50 employees were compared to those with 50 or more employees (medium and large businesses). Table 12 shows respondent estimates of lost sales broken down by size of business. As shown, 82.2% of small businesses indicated that they would lose sales if they did not have access to billboards in comparison to 72% of businesses with 50 or more employees. This difference is statistically significant (chi-square = 4.6; $p = .032$). For small businesses, the average predicted loss was 17.0% in comparison to 11.5% for medium and large businesses. These findings suggest that while restrictive regulation would significantly hurt both small and large companies who use billboards, the most pronounced impact would be on small businesses.

Table 13 breaks down respondent ratings of various media's ability to bring in new customers by size of business. For both large and small businesses, billboards are rated highest by a wide margin. Small businesses rated billboards somewhat higher (5.57) on their ability to bring in customers than large businesses (5.30). While this raw difference is not dramatic, it is statistically significant at the .05 level. Interestingly, for all other media the respondents were asked about, small businesses gave slightly higher ratings for the ability to bring new customers than did large businesses.

The findings for small vs. larger businesses on ability to increase sales show a similar pattern. Small businesses rate billboards slightly higher than large businesses (5.33 vs.

5.04) on this dimension. Again, large businesses rated all other media a bit higher than did small businesses. Again, billboards were the top medium for increasing sales for both small and large businesses.

Collectively these analyses suggest that while billboards are an important medium for both small and large businesses who use them, restrictive regulations would hit small businesses especially hard. This finding makes sense in terms of the lack of affordable alternatives for small businesses as well as the efficiency of billboards in reaching local trade areas.

Conclusion

The findings of this national survey of billboard users provide information that is useful in assessing the ongoing regulatory debate over billboards. The three major issues investigated were related to 1) whether billboards have value; 2) whether there are alternatives that can serve as substitutes for billboards; and 3) whether a ban on billboards would have any economic impact. With respect to the first question, it is clear that billboards provide value to the consumers and to the businesses who use billboards. Billboards include information that is helpful to consumers. Billboards also allow businesses to communicate information about their product offering. Additionally, billboard users see the medium as having unique and important benefits that help their business. These unique qualities include the ability to reach a local trade area and attract new customers at an affordable price.

Investigation of the availability of alternatives to billboards paints a stark picture. The respondents resoundingly indicate that on-premise signs do not serve the same function as their billboards. Additionally the respondents make it clear that other media, including television, radio, newspapers, magazines, flyers and the internet are not substitutes for their billboards. These other media are also not rated to be as effective as billboards in attracting new customers or in increasing sales. Combined with previous research on outdoor advertising, it is clear that other media and on-premise signs are not close substitutes for billboards. This is especially the case for small businesses.

Finally, and perhaps most important, the results of this study indicate that a substantial majority of billboard users believe that their sales will significantly decrease if they do not have access to billboards. Over three quarters of the businesses surveyed believed they would lose sales if billboards are banned and the average estimated sales loss among these businesses was 18%. This level of sales loss simply cannot be sustained by most businesses and would be devastating to many small business.

References

1. Arens, William F. (1999), *Contemporary Advertising*. New York: McGraw Hill.
2. Berman. Barry and Joel Evans (1998), *Retail Management*. New York: MacMillan.
3. King, Karen W. and Spencer F. Tinkham (1990), "The Learning and Retention of Outdoor Advertising," *Journal Of Advertising Research*, 30 (December/January), 44-51.

4. Kotler, Philip (1997), *Marketing Management: Analysis, Planning and Control* (9th ed). Englewood Cliffs, NJ: Prentice Hall.
5. Lilley, William and Laurence J. DeFranco (1995), "The Economic Impact of Outdoor Advertising on Urban, Big-City America," Report prepared by Incontext, Inc, 1615 L St., NW, Washington, D.C.. 20036.
6. Lusch, Robert F., Patrick Dunne, and Randall Gebhardt (1993), *Retail Marketing*, Cincinnati: Southwestern Publishing.
7. McGann, Anthony and J.T. Russell (1988), *Advertising Media* (2nd ed.), Homewood, IL: Richard D Irwin.
8. Pessemier, Edgar (1980). "Store Image and Positioning", *Journal of Retailing*, 56 (Spring), 96-97.
9. Shimp, Terence A. (1997), *Advertising, Promotion, and Supplemental Aspects of I* (4th ed.), New York: Dryden.
10. Taylor, Charles R. and John C. Taylor (1994), "Regulatory Issues in Outdoor Advertising: A Content Analysis of Billboards", *Journal of Public Policy and Marketing*, 13 (1), 97-108.
11. Taylor, Charles R. (1997), "A Technology Whose Time Has Come or the Same Old litter on a Stick? An Analysis of Changeable Message Billboards," *Journal of Public Policy and Marketing* 16 (2), 179-186.
12. U.S. Travel Data Center (1991). "Consumer Perceptions of Billboards." Washington: U.S. Travel Data Center.

About the Author

Charles R. Taylor (Ph.D., in Marketing, Michigan State University) is Professor of Marketing at Villanova University. He currently serves as Vice President of the American Academy of Advertising and the Board of Directors for the Marketing and Society SIG of the American Academy of Advertising. He also serves on the Editorial Review Boards of the *Journal of Public Policy and Marketing*, *Psychology and Marketing*, and *Journal of Business Research*. He has published more than seventy articles and books on topics related to marketing and public policy. These include several articles in leading journals, including the *Journal of Advertising*, *Journal of Advertising Research*, *Journal of Public Policy and Marketing* and *Journal of Current Issues and Research in Advertising*.

Dr. Taylor is a nationally recognized expert on advertising regulation. He is listed in *Who's Who in the World* and *Who's Who in American Education*. He has received several national awards, including the Charles Slater Memorial Award for outstanding research in the area of macro marketing and the Hans B. Thorelli Award for outstanding contribution to research in international marketing. Additionally, he has received research fellowships from the Richard D. Irwin Foundation and the American Academy of Advertising.

Table 1
Type of Business

Business Type	Frequency	Percent
Hotel	74	22.3%
Restaurant	63	19.0%
Retail Store	45	13.6%
Entertainment/Tourism	43	13.0%
Advertising or Media	21	6.3%
Gas Station/ Mini Market	17	5.1%
Government or Non-profit	14	4.2%
Auto Dealership	13	3.9%
Real Estate	12	3.6%
Banking and Insurance	9	2.7%
Manufactured Product	6	1.8%
Other	15	4.5%
Total	332	100.0%

Table 1 A
Type of Business

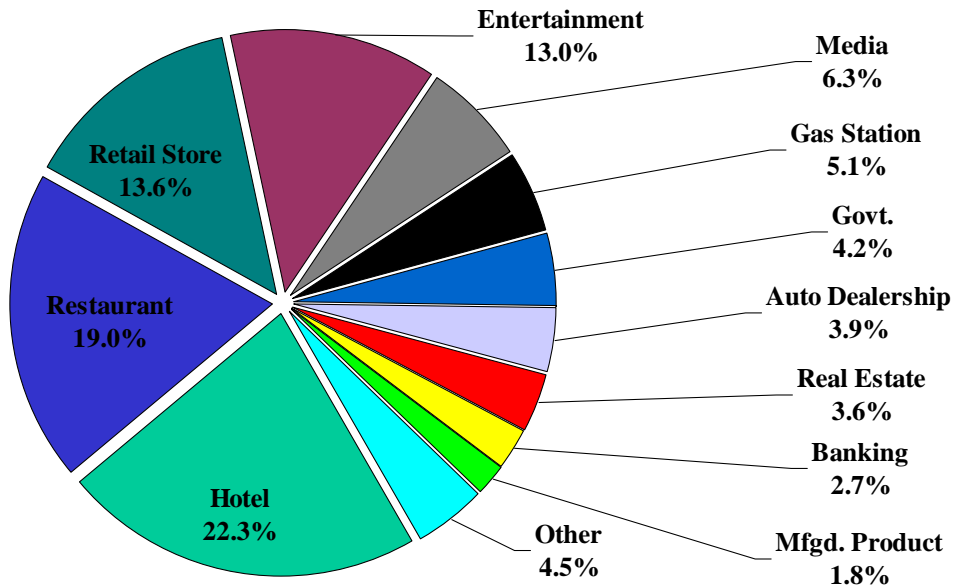


Table 2
YEARS IN BUSINESS

Year	Frequency	Percent
1 or less	1	0.3%
2 to 5	28	8.5%
6 to10	52	15.8%
11 to 25	114	34.5%
More than 25	135	40.9%
All	330	100.0%

Note - for variables with missing cases, numbers do not sum to the total of 332 returned surveys.

Table 2 A
YEARS IN BUSINESS

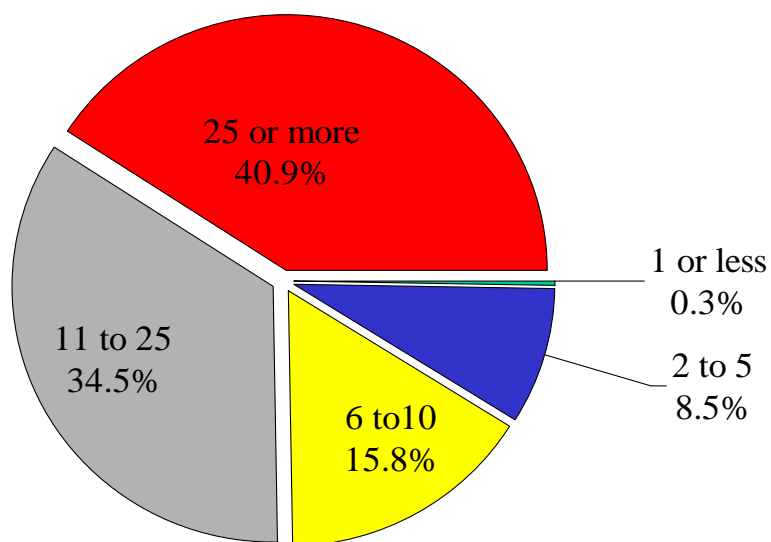


Table 3
NUMBER OF YEARS USING BILLBOARDS

	Frequency	Percent
Less than 2	1	0.3%
2 to 5	69	20.9%
6 to 10	88	26.7%
11 to 25	122	37.0%
More than 25	50	15.2%
Total	330	100.0%

* For variables with missing cases, numbers do not sum to the total of 332 returned surveys.

Table 3 A
NUMBER OF YEARS USING BILLBOARDS

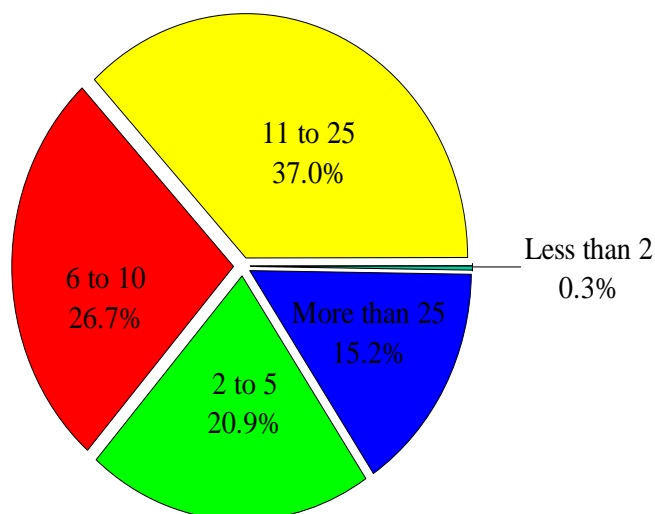


Table 4
 SIZE OF BUSINESS
 (Number of Employees)

	Frequency	Percent
10 or less	51	15.6%
11 to 25	59	17.9%
26 to 50	55	16.7%
51 to 100	48	14.6%
101 to 250	31	9.4%
251 to 500	28	8.5%
Over 500	57	17.3%
Total	329	100.0%

* Including 7 returns of non-users.

Table 4 A
 SIZE OF BUSINESS
 (Number of Employees)

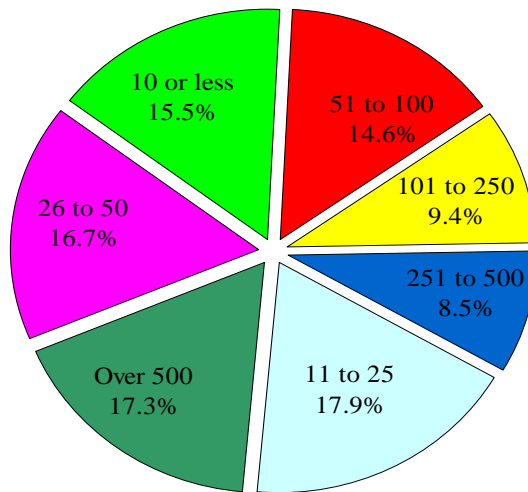


Table 5
NUMBER OF BILLBOARDS USED

	Frequency	Percent
1	54	16.5%
2 to 4	104	31.8%
5 to 9	62	19.0%
10 to 19	38	11.6%
20 or more	69	21.1%
Total	327	100.0%

* 2 missing data from returned surveys.

Table 5 A
NUMBER OF BILLBOARDS USED

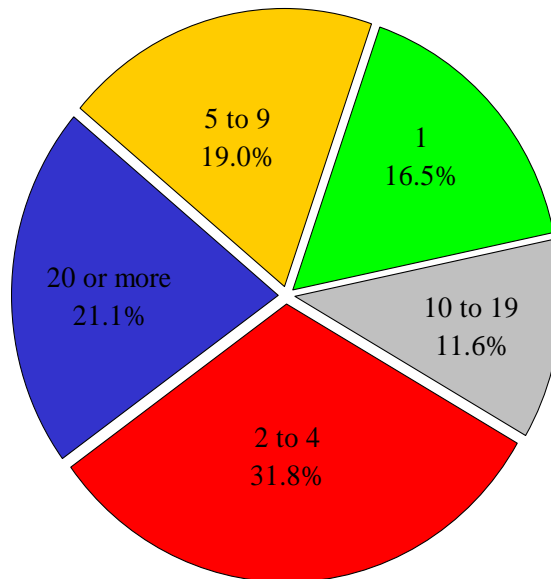


Table 6
PROPORTION OF RESPONDENTS USING SPECIFIC
INFORMATION CUES

Directions	82.8%
Product/Services Offered	71.3%
Quality	32.6%
Convenience	21.5%
Savings/Values	20.2%
Price	14.5%

Table 7
REASONS FOR USING BILLBOARDS

	Average
Attract New Customers	5.80
Communicate Message to Consumers	5.64
Allow us to Reach Trade Area	5.44
Cost Effective	5.02
Different Function than On-Premise	6.15

*Scale ranged from 1 to 7,
with 1= strongly disagree and 7= strongly agree

Table 8
 ABILITY TO COMMUNICATE INFORMATION AT A
 PRICE YOU CAN AFFORD

	Average
Billboards	5.38
Radio	4.19
Local Newspapers	4.17
Flyers	4.06
Local Television	4.04
Internet	4.02
Magazines	3.45
Regional/Nat'l. Newspapers	3.13
National Television	3.10

* Measured on a 7 points scale with 1=strongly disagree and 7=strongly agree

Table 8 A
 ABILITY TO COMMUNICATE INFORMATION
 AT A PRICE YOU CAN AFFORD

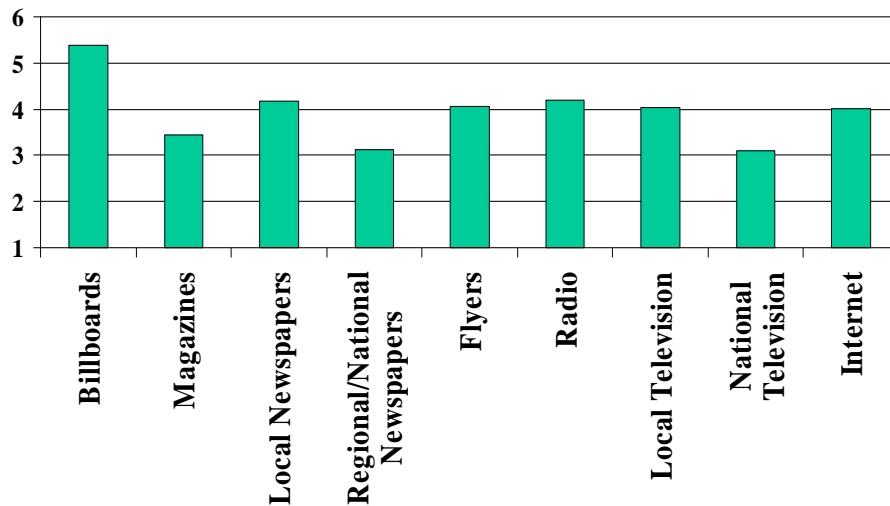


TABLE 9
RESPONDENT RATINGS OF LEVEL TO WHICH OTHER
MEDIA ARE A SUBSTITUTE FOR BILLBOARDS

	Average
Local Television	3.63
Radio	3.59
Local Newspapers	3.57
Flyers	3.42
Internet	3.36
National Television	3.04
Magazines	2.91
Regional/Nat'l. Newspapers	2.67

* Responses rated on a 7 point scale with 1=not a close substitute and 7=close substitute.

Table 9 A
RESPONDENT RATINGS OF LEVEL TO WHICH OTHER
MEDIA ARE A SUBSTITUTE FOR BILLBOARDS

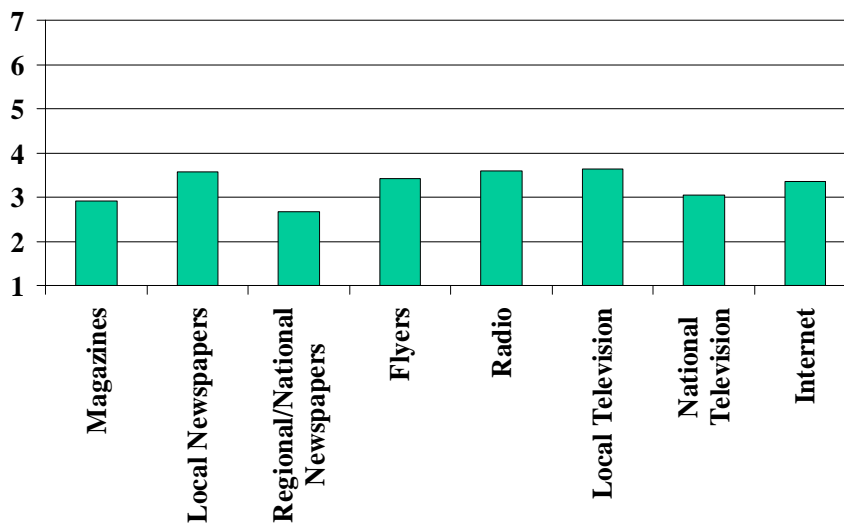


Table 10
**RATINGS OF VARIOUS MEDIA'S ABILITY TO BRING
 NEW CUSTOMERS AND INCREASES SALES**

	Bring New Customers	Increases Sales
Billboards	5.43	5.18
Local Television	3.96	3.89
Radio	3.79	3.68
Local Newspapers	3.66	3.63
Internet	3.54	3.36
Flyers	3.44	3.43
National Television	3.08	3.08
Magazines	2.80	2.68
Regional/Nat'l. Newspapers	2.66	2.55

Table 10 A
RATINGS OF VARIOUS MEDIA'S ABILITY TO
BRING NEW CUSTOMERS

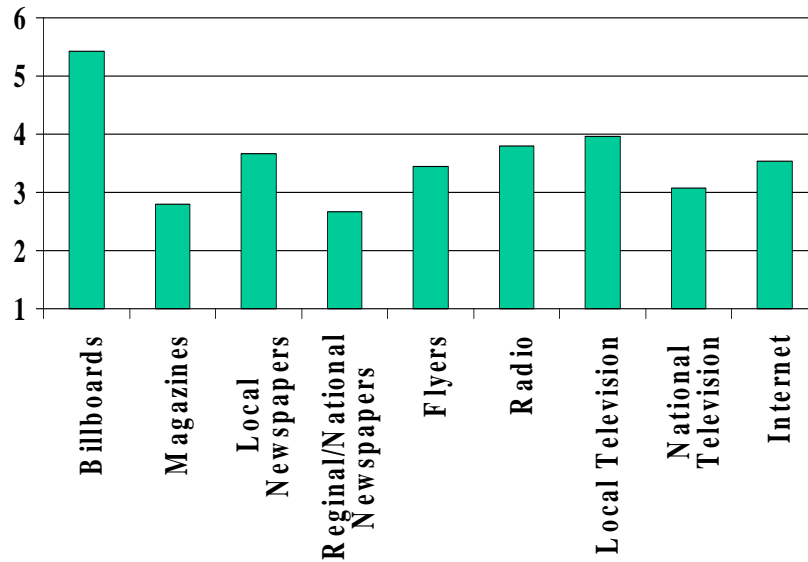


Table 10 B
RATINGS OF VARIOUS MEDIA'S ABILITY TO
INCREASE SALES

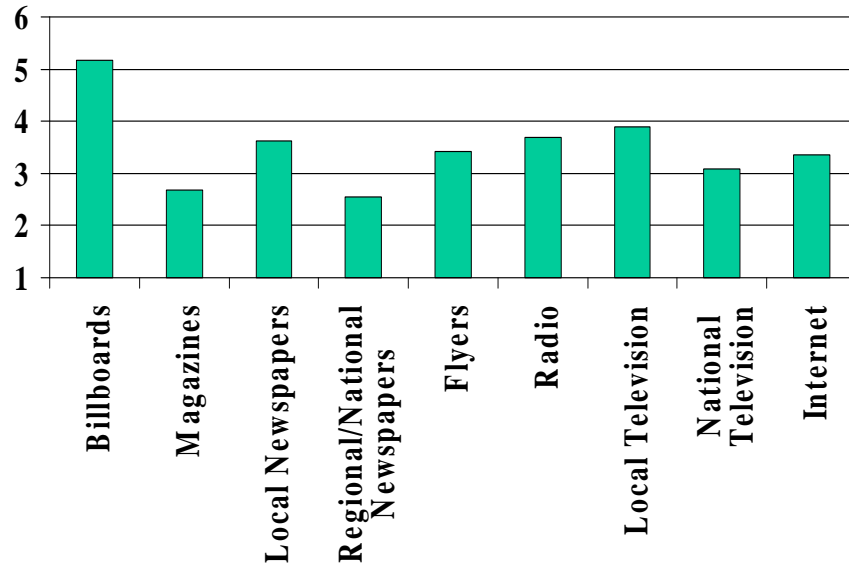


Table 11
IMPACT OF A BAN ON BILLBOARDS ON SALES

	Frequency	Percent
Increase	0	0.0%
Stay the Same	74	23.1%
Decrease	246	76.9%
Total	320	100.0%

* Of those reporting that sales would decrease, the average estimated decrease in sales is 18%.

*For the entire sample, the average decrease is 14%.

Table 12
IMPACT OF A BAN ON BILLBOARDS ON SALES
(SMALL VS. LARGE)

	small business	large business
Proportion Indicating		
A Decline in Sales	82.2%	72.0%
Estimated Sales Loss	17.0%	11.5%

Table 13
Bring New Customers
Small Vs. Large

	small business	large business
Billboards	5.57	5.30
Local Television	3.58	4.36
Local Newspapers	3.48	3.84
Radio	3.42	4.17
Internet	3.42	3.65
Flyers	3.31	3.60
Magazines	2.62	2.99
Regional/Nat'l. Newspapers	2.47	2.86
National Television	2.46	3.66

Table 13 A
Bring New Customers
Small Vs. Large

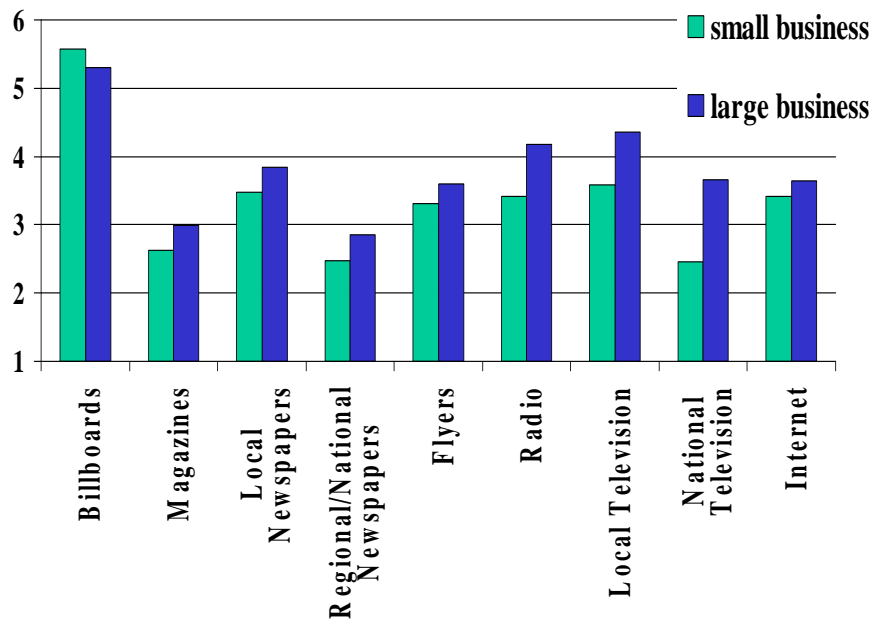


Table 14
Increase Sales
Small Vs. Large

	Small business	Large business
Billboards	5.33	5.04
Local Television	3.41	4.36
Local Newspapers	3.40	3.85
Radio	3.23	4.12
Flyers	3.20	3.69
Internet	3.17	3.52
Magazines	2.46	2.91
National Television	2.44	3.65
Regional/Nat'l. Newspapers	2.33	2.78

Table 14 A
Increase Sales
Small Vs. Large

