

Illuminated vs. Non-Illuminated Signage – Economic Impact of Illumination

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Executive Summary

Recent years have seen a trend toward some municipalities implementing restrictions on lighted on-premise signs. How does this impact businesses? To this end, this study reports the results of a nationally representative sample of on-premise sign users. Specifically, the study examined the degree to which businesses: 1) light their signs beyond normal business hours; 2) face lighting restrictions on on-premise signs; 3) believe lighted, on-premise signs help them perform key marketing functions; and 4) believe a lighted on-premise sign impacts their bottom line.

A professional market research firm sent the survey to 750 on-premise sign users identified from industry customer lists. All received a \$10 incentive. After a reminder mailing, 333 usable responses were obtained. After excluding undeliverable mail, the response rate was 47.4%. Analysis indicates responses came from businesses in a wide variety of types, sizes and longevity.

The average respondent has 1.71 signs and lights their signs 13.9 hours per day, while the average hours of operation were just 10.8 hours. More than 80% of companies reported illuminating their sign after business hours, with 30% indicating they leave their sign on 24/7. Approximately one-fourth of the sample reported facing restrictions on lighted, on-premise signs. Most restrictions concerned the type of illuminated sign (24%), but some focused on brightness (8%) and the sign's allowable hours of operation (3%).

The on-premise sign users strongly report that lighted, on-premise signs effectively perform key marketing functions. Respondents overwhelmingly agree a lighted on-premise sign

helps perform the following marketing functions (as measured on a 7-point Likert type scale with 7 = strongly agree):

- Reinforces advertising as part of integrated marketing communications (6.14)
- Brands the business' location (6.14)
- Enhances store image (6.21)
- Helps communicate the business' location (6.19)

Respondents also agree that restrictions on lighting on-premise signs inhibit their ability to effectively perform these marketing functions. Respondents further report that keeping a sign illuminated when a store/business is closed helps achieve marketing goals (6.22) and enhances the overall look of the business community.

More than half of the respondents indicate they would lose sales if government regulations prevent them from lighting their sign. This group estimates a 21% loss, while the overall sample estimates an 11% average loss. Collectively, these results clearly document that managers know lighting on-premise signs achieves important marketing functions. Regulators should acknowledge these findings when considering lighting restrictions on on-premise signs.

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Motivation for the Study and Research Questions:

Some municipalities have implemented restrictions on the illumination of on-premise signage. Critics argue the lighting of on-premise signs is unnecessary, aesthetically displeasing, and wastes energy (e.g., Dark Skies International 2014; Flagstaff Dark Skies 2014). In recent years, some critics have blamed on-premise signs for light pollution, defined as “light that is either too bright for its intended purpose” or “that shines where it is not needed or wanted” (RASC 2003; c.f., Garvey 2005, p.8). While available evidence documents a strong majority of on-premise signs do not meet photometric levels associated with light pollution (e.g., Garvey 2005), controversy still remains. As a result, many municipalities have been pressured to implement stricter codes with respect to lighted signs, particularly newly installed signs. Below are some examples:

- Pima County, AZ – mandates a shut-off time of 10 pm unless the business remains open. If the business remains open after 10 pm, illumination must be turned off between closing time and sunrise.
- Hilton Head, SC – bans all internally illuminated signs.
- Winston Salem, NC – mandates that illuminated signs shall be so shielded so as not to cast direct light onto any residential district.
- Arlington County, VA – provides lighting standards for illumination of traditional signage.
- Mendham Borough, NJ – prohibits neon signs.

The enactment of such restrictions has been growing in recent years, and, in many cases, their impact will evolve gradually due to “grandfather clauses” that protect existing businesses from new regulations. Thus, it is particularly important to study the impact of such regulations so that communities can make informed decisions. Because businesses clearly use on-premise signs to perform important marketing functions (Taylor, Claus, and Claus 2005; Taylor, Sarkees, and Bang, 2011), it is particularly important to examine the degree to which illuminating on-premise signs impacts on those businesses subject to such regulation.

Extant literature sites several aspects that contribute to on-premise signs’ general effectiveness (Signage Sourcebook 2003). A sign’s ability to be read is a fundamental prerequisite to success. More specifically, in addition to size and proper placement, two key issues to a sign’s effectiveness are visual *conspicuity* and its level of *visibility*. Visibility refers to the physical attributes of a sign that allow its detection at a given distance. Visual conspicuity (hereafter, *conspicuity*) refers to the sign’s capacity to stand out or be distinguishable from its surroundings, and thus be readily discovered by the eye (Taylor, Claus and Claus 2005).

Referring to signs in urban environment, Taylor, Claus and Claus (2005, p.8.2) state:

“One way to think of conspicuity, as opposed to visibility, legibility, or readability, is that the term relates to a sign’s surroundings. A sign in isolation may meet all the criteria for visibility (or detectability at some distance), legibility (letters and/or graphics can be easily differentiated), and readability, (the legend in totality conveys a meaningful or understandable message to the viewer). However, when that sign is placed in the urban

environment where it competes with other signs, utility poles, traffic control devices, bus shelters, and right of way landscaping, it can become essentially invisible.”

A conspicuous sign stands out from its visual surroundings and has a high probability of being noticed. If the sign does not stand out from its surroundings, it is much less likely to get noticed.

Clearly, lighting affects both the visibility and conspicuity of signage, particularly at night or under bad weather conditions. As a result, the on-premise sign industry needs to adapt to several illumination needs, including accurate color rendering, readability, energy efficiency, cost, and local weather conditions (see Taylor, Claus and Claus 2005). Moreover, visibility and conspicuity, as well as the sign’s readability, can be affected by lighting, in some instances, even under relatively good daytime weather conditions.

Controversy over the need for lighted on-premise signs necessitates research on the degree to which being allowed to light signs affects business. This research strives to document how restrictions on lighted on-premise signs affect business. The specific research questions are:

- 1) How long do typical businesses illuminate their on-premise signs?
- 2) To what extent do businesses face restrictions on the lighting of on-premise signs?
- 3) To what extent do lighted, on-premise signs help perform key marketing functions, and to what extent do restrictions on lighting on-premise signs inhibit them from performing these marketing functions?
- 4) How do restrictions on lighting on-premise signs impact businesses’ bottom line?

The Marketing Functions of On-Premise Signs

Because the study examines whether lighting restrictions affect on-premise signs' ability to help businesses achieve goals, prior research should be examined as to previously established marketing functions of signs, and the potential impact of lighting restrictions on signs' ability to perform these functions, and on sales.

As outlined by Taylor, Claus, and Claus (2005), on-premise signs perform four key marketing functions.

- 1) Communicating the business' location;
- 2) Reinforcing advertisements and other promotional techniques as part of integrated marketing communications;
- 3) Branding the site; and
- 4) Enhancing the image of the store or business. Below, each of these functions, and the possible impact of limits on lighting, are discussed.

Communicating the location of the business

A business' on-premise sign normally plays a critical role in identifying the business' located. The sign plays a key role both in wayfinding and in "getting the word out" that the business exists at a particular location. For some businesses, especially those that rely on impulse purchases, or serve immediate needs, the sign may often directly lead to a customer purchases. According to the U.S. Small Business Administration (2003), impulse stops account for 15% to 45% of sales, depending on the type of business. Clearly, sign visibility and conspicuity closely relate to the ability to know where the store is (Berman and Evans 2007; Dunne and Lusch 2007). Thus, restrictions on illumination, especially during evening hours or poor weather conditions, would harm signage's identification function.

Reinforcing advertisements and other marketing variables as part of integrated marketing communications (IMC).

Marketers must carefully communicate a consistent message to consumers because consumer perceptions of a company or brand are a synthesis of messages received from the company, as well as every point of contact with the business (Belch and Belch 2004; Chatterjee 2011; Kerr et al., 2008; Taylor 2010). Inconsistent or incongruent messaging can confuse the consumer and harm brand equity (Duncan 2005; Garretson and Burton 2005; Goodstein 1993). Exposure to on-premise signage must be considered part of IMC. If lighting restrictions prevent a business from communicating and displaying its message, such as an identifiable logo or character (e.g., Target, Wendy's), consumers may be confused, and damage to the brand may result (Garretson and Burton 2005).

Branding the site.

The on-premise sign uniquely and critically brings branding to the business' physical site (Taylor, Claus and Claus 2005). Trade dress, including trademarks, can help enhance recall of the business and build positive associations with the brand (Kopp and Langenderfer 2014). Exposure to trade dress via the on-premise sign, even during non-business hours, can be important in shaping brand image. Moreover, reinforcing the brand at the point of purchase, for retail and service businesses, is fundamental to maximizing brand equity (Taylor, Claus and Claus 2005).

A key point is, the on-premise sign can help to brand the site even when the store is closed. (Ray: what about adding this here? Even though a business may be closed, the illuminated sign can create top-of-mind awareness, which means the consumer may not need the

product or service at that time, but they'll remember the location for a subsequent time when they might.) Thus, at night, an illuminated sign can still provide value to the business via the exposures it provides to consumers. Obviously, a sign that is not visible or cannot be read cannot help brand the site.

Enhancing the image of the store or business.

Retailing professionals have long agreed that brick-and-mortar stores must create and reinforce a positive store image to ensure success (Golden, Albaum and Zimmer 1987; Pessemier 1980). Signage is important to crafting a store image because it not only attracts attention, it also can communicate the store's image and atmosphere (Berman and Evans 2007). For example, some stores seek prestige via expensive signage, coupled with an elegant storefront. Recently, Old Navy returned to its original logo in order to be consistent with the family-oriented environment inside its stores (Old Navy 2013). The on-premise sign should consistently demonstrate the store's image. Universally, retail stores and service businesses must project a clear, distinctive image to consumers to be successful. Lighting the on-premise sign allows this image to be communicated at all hours.

Sales Impact of On-Premise Signs.

Many academic and practitioner studies from various perspectives (for the most part, legal) suggest businesses would lose sales if on-premise signs were altered, restricted or removed (e.g., Claus, Claus, and Claus 2001; The Economic Value of On-Premise Signs 1997). Additionally, a recent academic study by Taylor, Sarkees and Bang (2012) found that 85% of a representative U.S. sample of on-premise sign users would lose sales if they did not have an on-

premise sign. Additionally, the average reported loss of sales across the entire sample was 34.5%.

The on-premise-sign debate includes arguments that, without adequate signage, customers will not know a business' location, or enter the store, and thus sales will suffer. Related marketing studies support this theory. An on-premise sign, as a "feature" notification method, may drive customer foot traffic and sales (e.g., Lohse 1997; Zhang, Wedel, and Pieters 2009). This suggests a business could lose first-time customers and potentially longer-term revenue without an on-premise sign. Additionally, limiting the on-premise sign's ability to perform marketing functions hinders longer-term consumer perceptions, such as branding the site, enhancing image, and reinforcing other marketing communications. Similarly, limits on lighting would harm the sign's ability to perform all of these functions and, hence, these restrictions would negatively impact sales.

Most sign users believe sign illumination plays an important role. Illuminated signage and technologies, such as neon lighting, have directly helped many businesses enhance their image. Stores can ensure that signs look the same during the day or night, or they can use the sign to produce a different (perhaps more exciting or exotic look) at night, depending on business objectives. Clearly, illumination helps brand the site and communicates the company's message, whether or not the business is open. Consumers may remember the business' location and image, even when the business is closed, and come back later. Lighting can especially make the sign stand out from the environment. This also enhances the sign's ability to perform marketing functions, and give the business a competitive advantage.

Methodology

The survey and sampling plan were developed and designed by Dr. Charles R. Taylor of Villanova University. Mailing and data entry were carried out by ICR/SSRS of Media, PA, a large, independent, and well-respected marketing research firm via a mail methodology. An initial mailing, sent via first-class mail using envelopes with a Villanova University return address, included:

- An 11 x 17 booklet that contained a one-page cover letter, personalized and customized with the sample provider's name and company, and a three- page questionnaire
- A business-reply envelope addressed to SSRS (response went directly to SSRS) (Ray: What's SSRS?)
- \$10 as an incentive to return the completed survey

The cover letter and survey are attached to this report as Appendix 1.

The sample was drawn from the customer lists of two national companies, Signtronix (1,016 records) and Federal Health (37 records) provided by The Signage Foundation. After eliminating duplicates, 750 records were selected -- 713 randomly selected from the Signtronix list and all 37 from Federal Health. The national coverage of these companies ensures the sample's national representation of on-premise sign users.

Next, 525 reminder postcards were sent approximately three weeks after the initial mailing to all survey non-responders (see Appendix 2). Surveys returned as "undeliverable" were also excluded from this reminder mailing. Additionally, Tom Johnson, president of Signtronix, emailed those on the Signtronix list and asked for their participation.

Field Dates:

- Initial mailing to 750 – November 12-14, 2013
- Reminder postcard mailing to 525 – December 4, 2013
- Final cut-off date for returns – February 1, 2014

Final Returns Count:

- Undeliverables – 48
- Returned blank – 8
- Completed returns – 325

Response Rate: $333 / (750-48) = 333/702 = 47.4\%$

The response rate, as calculated above, follows standard practice for marketing research in that undeliverable mail is subtracted from the total number of surveys sent out in the numerator, while only completed surveys are included in the denominator. Because of the high response rate, additional statistical analyses of non-respondents were deemed unnecessary as it is unlikely non-response bias would impact the results. Also, 35 of the non-responses were returned due to “no mail receptable,” which possibly indicates the business receives its mail at a P.O. Box independent of the store address.

Results

Profile of Respondents and Their Signage Use

The respondents represent companies of myriad durations (see Table 1). As shown in Table 2, most are small businesses. Table 3 shows a wide variety of types of businesses were included.

Table 1 – Number of Years in Business

Category	Percentage of Sample
Less than 1 year	10%
2 – 5 years	23%
6 – 10 years	13%
11 – 25 years	19%
26 – 50 years	24%
More than 50 years	8%

Table 2 – Number of Employees

Category	Percentage of Sample
10 or fewer	73%
11 - 25	13%
26 - 50	3%
51 - 100	1%
101 - 250	1%
Over 250	6%

Seventy-three percent of the businesses had 10 or fewer employees, and 86% of the sample had 25 or fewer employees. This reflects that a large majority of U.S. businesses are small business (Private Firms, Establishments, Employment, Annual Payroll and Receipts by Firm Size, 1988-2006, 2007; The Small Business Economy: A Report to the President 2009).

Table 3 – Type of Business

Type of Business	Percentage of Sample
Restaurant (table or fast food)	18.9%
Retail (general/grocery/apparel)	17.9%
Insurance	14.2%
Automotive or Auto Repair	14.2%
Consumer Services	8.0%
Non-profit	4.2%
Hotel/Motel	2.6%
Business Services	2.2%
Gas station/ Mini-Mart	1.6%
Entertainment	1.3%
Consulting	1.3%
Real Estate	1.0%
Other	8.9%

With respect to Research Question 1, respondents report having an average of 1.71 illuminated, on-premise signs at their place of business. The mean number of hours the business is open per day is 10.8 hours. The average number of hours per day the sign is illuminated is 13.9 hours, more than three hours longer.

A large majority of the businesses (81%) report keeping the sign illuminated after business hours, and 30% of the companies report leaving their sign on all the time. Sixty percent

indicate they turn their illuminated sign on during the day. An overwhelming proportion (91%) report they have images, such as a logo, drawing, or other artwork, on their lighted on-premise sign.

Prevalence of Restrictions on Illuminated Signs

With respect to Research Question 2, just 3% of respondents reported restrictions on hours of illumination, while 8% indicated they faced restrictions on allowable brightness level. A somewhat larger proportion (24%) reported restrictions on the type of illuminated sign permitted. Overall, approximately three-quarters of these sign owners reported no local restrictions in terms of hours, brightness and sign type. However, these results suggest more businesses are facing some type of restriction than previously.

Table 4 – Percentage of Businesses Facing Lighting Restrictions

Regulations on:	Percentage of Sample
Hours of operation	3%
Brightness of sign	8%
Type of illuminated sign	24%

Open-ended Response Pertaining to Illumination

Question 11 on the survey asked respondents, “If you have ever encountered a situation in which you were forced to limit illumination of your on-premise sign, please describe the reason for the limitation and the impact it had on your business (Please be as specific as possible).” Among respondents, 14 (44%) referenced limitations on sign brightness or flashing/scrolling messages; three responses referred to complete bans on illumination (9%); 3 more concerned time restrictions (9%), and two involved height/size restrictions (6%). Other

comments fell into the miscellaneous category. Appendix 3 shows some representative comments. Overall, these findings reinforce that restrictions on brightness, and the degree to which signs deliver scrolling and/or flashing messages, have become a significant issue.

Functions of Lighted On-Premise Signs

Research Question 3 asked whether restrictions on lighting on-premise signs inhibit them from performing their marketing functions. Results clearly indicate businesses believe lighted on-premise signs play these roles. Respondents overwhelmingly agreed that a lighted, on-premise sign helps perform the following marketing functions (as measured on a 7-point Likert type scale with 7 = strongly agree):

- Helps business to attract customers (5.99),
- Reinforces advertising as part of integrated marketing communications (5.90),
- Brands the location (6.27),
- Enhances store image (6.27), and
- Helps communicate the business' location (6.17).

Respondents expressed strong agreement when asked specifically about the importance of an on-premise sign illuminated during night hours. Mean scores were:

- 6.19 for “Communicates the location of the business”;
- 6.06 for “Reinforces advertising and other marketing communication”;
- 6.14 for “Brands the site”; and,
- 6.21 for “Enhances store image.”

Most respondents also agree an illuminated sign lit when the store is closed helps achieve marketing goals (6.22), and enhances the overall look of the business community (5.75/7.0).

Collectively, these results indicate lighted on-premise signs make important contributions to firms successfully marketing their products.

Impact on the Bottom Line

Results indicate that lighted on-premise signs substantially impact the bottom line of many businesses. A sizeable majority of respondents (58%) indicated they would lose sales if government regulations prevented signs from being lit at any hour. For those who reported a sales loss, the average estimate was 21%. For the overall sample, including those businesses not reporting a loss, the average estimated loss of sales exceeded 10%. Similar to the results for sales, 58% of businesses reported they would lose customers, given such a restriction, with a decline of 18% for those indicating a loss and a 9.4% decline for the overall sample.

Respondents largely agreed their lighted, on-premise sign creates a competitive advantage (5.37/7.0).

Overall, these results strongly indicate that lighting on-premise signs affects the bottom line of many businesses. For those businesses who would expect a loss, the average loss of more than 20% could be the difference in being profitable.

Analyses Based on Geographic Region

Each response was coded into one of the nine geographic regions shown in Table 5. For purposes of analysis, these categories were collapsed into the four sub-categories, also shown in Table 5. The breakdown of respondents by region is shown as Table 6.

Table 5 – Geographic Regions

- 1) Northeast - New England (Maine, Vermont, New Hampshire, Rhode Island, Connecticut, Massachusetts, and Mid-Atlantic (New York, New Jersey, Pennsylvania, Delaware, Maryland, West Virginia, Maryland, Virginia)
- 2) North Central - East North Central (Ohio, Indiana, Wisconsin, Michigan and Illinois) and West North Central (Minnesota, Iowa, Missouri, Kansas, Nebraska, South Dakota, North Dakota)
- 3) South - South Atlantic (North Carolina, South Carolina, Georgia, Florida), East South Central (Kentucky, Tennessee, Alabama, Mississippi) and West South Central (Texas, Oklahoma, Arkansas, Louisiana)
- 4) West - Mountain (Montana, Idaho, Colorado, Wyoming, New Mexico, Arizona, Utah, Nevada) and Pacific (Washington, Oregon, California, Hawaii, Alaska)

Table 6 – Responses by Region

Region	Number	Percentage of Sample
Northeast	59	19%
North Central	83	27%
South	134	44%
West	32	10%

The average number of illuminated signs by region, for those respondents who reported having an illuminated sign, is reported in Table 7. As can be seen, any difference are negligible. A similar analysis showed relatively small differences in the number of hours signs are illuminated, although sign operators in the South did report somewhat shorter hours of operation (see Table 8).

This difference was statistically significant at .05 for South vs. Northeast and South vs. North Central. However, none of the differences in the number of hours the business is open were statistically significant at .05. Again, these findings support the notion that most businesses across the county believe it is important to have a sign illuminated beyond normal business hours.

Table 7 – Average Number of Illuminated Signs by Region

Region	Average Number of Illuminated Signs
Northeast	1.64
North Central	1.86
South	1.81
West :	1.66

Table 8 – Average Number of Illuminated Signs by Region

	Hours Open	Hours Illuminated
Northeast	11.19	14.41
North Central	11.94	14.36
South	9.92	13.62
West :	10.65	13.22

Analysis of restrictions on hours (Q4) and sign brightness (Q5) were uniformly low across geographic regions. However, as shown in Table 9, the Northeast region is most prone to

have restrictions on the type of illuminated sign (Q6) that is allowable, followed by the West, North Central and Southern regions.

Table 9 – Restrictions on Type of Illuminated Sign Allowable

Region	Percentage Reporting Restrictions
Northeast	31%
North Central	23%
South	20%
West	25%

In general, additional analyses, of whether attitudes differ about the importance of on-premise signs by geographic region, did not yield significant results. As illustrated by Table 10, respondents across all regions showed strong agreement with the questions pertaining to marketing functions of signage, including helping them to obtain customers (Q12a), reinforcing integrated marketing communications (Q12b), branding the site (Q12c), enhancing store image (Q12d), and communicating location of the business (Q12f). Results were also uniform across regions for the degree to which illuminated signage helps businesses achieve various goals during night hours, and the degree to which lost sales in response to a ban on lighted on-premise signs was reported. Clearly, respondents across all geographic regions understand the value of illuminated on-premise signs.

Table 10 – Response by Region to Questions 12 a, 12b, 12c, 12d, and 12f

Region	Attract customers	Reinforce IMC	Build brand	Enhance image	Communicate location
Northeast	5.89	5.81	6.14	6.19	6.14
North Central	5.93	5.91	6.27	6.39	6.02
South	6.08	5.87	6.36	6.31	6.39
West	6.47	6.34	6.66	6.53	6.22

Analyses by Years of Experience

As shown in Table 11, businesses at all levels of experience strongly agree that lighted on-premise signs play key marketing functions. No statistically significant differences exist for any of the five variables analyzed in Table 11 at the .05 level.

Table 11 – Response by Region to Questions 12 a, 12b, 12c, 12d, and 12f

Region	Attract customers	Reinforce IMC	Build brand	Enhance image	Communicate Location
0 – 5 years	5.93	5.78	6.18	6.21	6.17
6- 25 years	6.16	6.06	6.37	6.35	6.22
25 or more years	6.03	6.04	6.41	6.43	6.26

However, newer businesses that reported a loss of sales reported significantly higher losses than older businesses. Businesses less than five years old reported an average estimated

loss of 26.6% with no illuminated sign, compared to 20.4% for those in business 6-25 years, and 16.6% for businesses older than 25 years.

Analyses by Size of Business

Similar to years of experience, no statistically significant differences were found for questions related to the marketing functions of signs (Questions 12 a, b, c, d, f). However, businesses with 10 or fewer employees reported an average estimated loss of 22.2%, while those with 11 or more employees reported an average loss of 17.9%. These results indicate lighted, on-premise signs are more important to the smallest businesses.

Conclusion

This study clearly shows businesses understand the value of lighting of on-premise signs. Moreover, the results demonstrate that lighted, on-premise signs help large numbers of businesses perform marketing functions effectively. Regardless of geographic region, size of business, and number of years in business, businesses of all types believe lighted on-premise signs play important marketing functions. Moreover, the businesses report illumination of signs, on average, is very important to their bottom line. This impact is even more pronounced for smaller and younger businesses. For many businesses, a lighted on-premise sign may be a “make or break” factor affecting profitability.

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On-Premise Signs

I. The following questions relate to your company's use of on-premise signs. Please fill in the number which you believe is most appropriate.

1. How many illuminated on-premise signs are at your place of business? _____ # Signs (11-12)

2. How many hours per day is your business open? _____ # Hours Open (13-14)

3. How many hours per day is your sign(s) illuminated? _____ # Hours Illuminated (15-16)

4. Does your business face restrictions on the hours that you can illuminate your on-premise sign? (17) 1 Yes 2 No

5. Does your business face restrictions on the brightness of your illuminated on-premise sign? (18) 1 Yes 2 No

6. Does your business face restrictions on what kind of illuminated sign you are allowed to use? (19) 1 Yes 2 No

7. Do you keep your illuminated sign on after business hours? (20) 1 Yes 2 No

If not, why not? (*Please check all that apply*) (21)

a) Not allowed by local government 1

b) Don't see need to keep it on after close 2

c) Want to keep utility bills down 3

8. Do you turn on your illuminated sign during daytime hours (i.e., during bad weather)? (22) 1 Yes 2 No

9. Do you have images on your illuminated sign (e.g., logo, drawing or other visual artwork)? (23) 1 Yes 2 No

10. Do you communicate messages to your customers via your illuminated sign (e.g., scroll or flashing weekly sales or other information)? (24) 1 Yes 2 No

11. If you have ever encountered a situation in which you were forced to limit illumination of your on-premise sign, please describe the reason for the limitation and the impact it had on your business. (*Please be as specific as possible*)

Please check here if you have not encountered this situation (25) 1



II. These questions relate to the functions performed by lighted, on-premise signs.

12. Please circle the number that most accurately reflects your agreement with each item below.

	(26-41)						
	Strongly Disagree						Strongly Agree
a. Our lighted on-premise signs help us to attract customers by communicating the location of our business.	1	2	3	4	5	6	7
b. Our lighted on-premise sign reinforces our advertising and/or other communications we have with our customers.	1	2	3	4	5	6	7
c. Our lighted on-premise signs help us to brand our site (gives our business an identity with customers).	1	2	3	4	5	6	7
d. Our lighted on-premise sign helps to enhance the image of our business.	1	2	3	4	5	6	7
e. Having our on-premise sign lit when the store is closed helps us achieve our marketing objectives.	1	2	3	4	5	6	7
f. Having our on-premise sign lit helps consumers know the location of our business.	1	2	3	4	5	6	7
g. Our lighted, on-premise sign is the primary way we attract new customers.	1	2	3	4	5	6	7
h. Without a lighted, on-premise sign we would likely go out of business	1	2	3	4	5	6	7
i. Our competitors utilize on-premise, lighted signs.	1	2	3	4	5	6	7
j. Our lighted, on-premise sign creates a bond with our customers.	1	2	3	4	5	6	7
k. Our lighted, on-premise sign enhances the overall look of the local business community.	1	2	3	4	5	6	7
l. Our lighted, on-premise sign creates a competitive advantage.	1	2	3	4	5	6	7
m. Our lighted, on-premise sign is a source of pride.	1	2	3	4	5	6	7
n. Our lighted, on-premise sign makes our customers feel more safe.	1	2	3	4	5	6	7
o. I would be willing to pay more for a lighted, on-premise sign.	1	2	3	4	5	6	7
p. If it was permissible, my lighted, on-premise sign would be larger.	1	2	3	4	5	6	7

13. Please indicate the extent to which you believe that having an on-premise sign that is illuminated (versus not illuminated) helps companies achieve the following goals during night hours.

	(42-45)						
	Strongly Disagree						Strongly Agree
a. Communicates the location of the business.	1	2	3	4	5	6	7
b. Reinforces advertising and other marketing communications.	1	2	3	4	5	6	7
c. Brands the site.	1	2	3	4	5	6	7
d. Enhances store or business image.	1	2	3	4	5	6	7

III. The following questions ask about the regulation of your lighted, on-premise signs.

14. If government regulations prevented you from lighting your sign at any hour, what impact, if any, would that have on your company? (Please check one answer for each outcome and provide estimated percentage, if applicable.)

Outcome					
a. Sales	<input type="checkbox"/> Decline _____%	<input type="checkbox"/> No Change	<input type="checkbox"/> Increase _____%		(46-52)
b. Number of Employees	<input type="checkbox"/> Decline _____%	<input type="checkbox"/> No Change	<input type="checkbox"/> Increase _____%		(53-59)
c. Number of Customers	<input type="checkbox"/> Decline _____%	<input type="checkbox"/> No Change	<input type="checkbox"/> Increase _____%		(60-66)
d. Open Business Hours	<input type="checkbox"/> Decline _____%	<input type="checkbox"/> No Change	<input type="checkbox"/> Increase _____%		(67-73)

15. Please circle the number that most accurately reflects your agreement with limiting the use of lighted, on-premise signs.

	(11-16)						Strongly Agree
	Strongly Disagree						
a. Limits during business hours hurt my business.	1	2	3	4	5	6	7
b. Limits during non-business hours hurt my business.	1	2	3	4	5	6	7
c. Limits hurt our local business community.	1	2	3	4	5	6	7
d. Limits hurt customer choice.	1	2	3	4	5	6	7
e. Limits increase local crime.	1	2	3	4	5	6	7
f. Limits will result in me closing my location.	1	2	3	4	5	6	7

IV. Please answer the following questions about your company.

16. The following questions refer to the intensity of competition in your business industry. Please circle the number that most accurately reflects your agreement with each item.

	(17-20)						Strongly Agree
	Strongly Disagree						
a. There are many "promotion wars" in our industry.	1	2	3	4	5	6	7
b. Any offer that one competitor makes to customers in the market, other organizations can readily match.	1	2	3	4	5	6	7
c. Price competition is a cornerstone of our industry.	1	2	3	4	5	6	7
d. Our competitors are constantly trying to gain advantages.	1	2	3	4	5	6	7

17. How many years has your company been in business?

- 1 or less
 2 - 5
 6 - 10
 11 - 25
 26 - 50
 More than 50 (21)

18. How many employees work for your company? (Note: if your business is a franchise, please indicate the number of employees who work for your franchise, as opposed to the parent company).

- 10 or less
 11 - 25
 26 - 50
 51 - 100
 101 - 250
 Over 250 (22)

19. Please check the **one** category that best describes your business:

- | | | | | |
|--|--|--|---|--|
| ⁽²³⁾ <input type="checkbox"/> Auto Dealership | ⁽²⁴⁾ <input type="checkbox"/> Auto Repair | ⁽²⁵⁾ <input type="checkbox"/> Banking | ⁽²⁶⁾ <input type="checkbox"/> Consulting | ⁽²⁷⁾ <input type="checkbox"/> Entertainment |
| <input type="checkbox"/> Hair/Barber | <input type="checkbox"/> Hotel/Motel | <input type="checkbox"/> Insurance | <input type="checkbox"/> Manufacturing | <input type="checkbox"/> Non-Profit |
| <input type="checkbox"/> Repair Service | <input type="checkbox"/> Retail(Apparel) | <input type="checkbox"/> Retail(Grocery) | <input type="checkbox"/> Retail (Other) | <input type="checkbox"/> Real Estate |
| <input type="checkbox"/> Gas Station or Mini-Market | <input type="checkbox"/> Government Services | <input type="checkbox"/> Restaurant (Fast Food) | <input type="checkbox"/> Restaurant (Table Service) | <input type="checkbox"/> Sports/Training Center |
| <input type="checkbox"/> Service (Business) | <input type="checkbox"/> Services (Consumer) | <input type="checkbox"/> Other:(Please specify): _____ | | |

Thank you very much for your cooperation.

Please return your completed questionnaire by using the enclosed business reply envelope.

Appendix 2 – Reminder Postcard

We recently sent you a questionnaire along with \$10 in the hopes you would complete our short survey for the Signage Foundation Inc. (SFI). This survey is regarding your on-premise signs and issues related to them being illuminated at night. Your participation in this survey will help gauge the attitudes of the business community toward illuminated signage, their impact on the business, and their regulation by local governments.

We are asking that you fill out the survey and return it in the provided postage-paid business reply envelope you were sent as soon as possible but no later than **December 20th**.

Your response will be kept anonymous. When received, surveys will be input into a data set for aggregate analysis and respondents will not be identified either by individual or by company.

Independent survey research firm SSRS is handling the administration of the survey. If you would like a summary of the results of the study, please include a business card or note indicating what email address you would like the summary to be sent to.

Thank you very much for your cooperation and assistance!

Sincerely,
Charles R. "Ray" Taylor, Ph.D.
John A. Murphy Professor of Marketing
Past President, American Academy of Advertising
Villanova University

ANY QUESTIONS, CONTACT:
Deborah Leiby-Clark
SSRS
1-800-633-1986, ext. 4336 or
dleiby-clark@ssrs.com



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Appendix 3 – List of Open- Ended Responses to Question 11

Sample open ended question responses to Q11: “If you have ever encountered a situation in which you were forced to limit illumination of your on-premise sign, please describe the reason for the limitation and the impact it had on your business (Please be as specific as possible):

- TOWN CENTER IN JACKSONVILLE REGULATED INTENSITY OF SIGN.
- FREQUENTLY REQUIRED TO USE NON-ILLUMINATED SIGN IMPACTS CUSTOMER ABILITY TO LOCATE STORE.
- TOWNSHIP REQUIRED LIMITING BRIGHTNESS BEFORE INSTALLATION.
- WE LEAVE THE LIGHTS ON 24 HOURS. THE MESSAGE BOARD WE TURN OFF FROM 10 PM TO 6 AM BECAUSE OF NEARBY RESIDENCES.
- ONE TIME THAT I AM AWARE OF - NO ILLUMINATION WAS ALLOWED. WE ENCOUNTERED OTHER DIFFICULTIES WITH THE SAME JURISDICTION AND ENDED UP NOT SIGNING THE LEASE AND PUTTING A STORE THERE.
- DUE TO ZONING, WE CANNOT DISPLAY LED SIGNS OR SCROLLING/FLASHING ELECTRONIC SIGNS. IF WE WERE ABLE TO, WE WOULD HAVE CHOSEN TO PURCHASE SUCH A SCROLLING SIGN TO PROMOTE OUR MONTHLY PROMOS AND DISCOUNTS.
- BRIGHTNESS TURNED DOWN AT DUSK.
- CITY GOVERNMENTS CAN NOT ALLOW ANY ILLUMINATION, EXTERNAL ILLUMINATION OR "HALO" BACK LIT ILLUMINATION. THIS CAUSES HARDSHIPS FOR THE VISIBILITY OF THE DISPLAYED SIGNAGE AS WELL AS A FINANCIAL IMPACT TO MANUFACTURE CUSTOM SIGNS TO MEET THESE REGULATIONS.
- DEPENDING ON LOCALITY, BACK LIGHTING OF SIGNAGE NOT ALLOWED.
- WE ARE A SCHOOL -- WHEN THE SIGN WAS INITIALLY INSTALLED, THE MESSAGES NEVER WENT OFF. I.E. IT WAS ON ALL NIGHT LONG. MANY COMPLAINTS CAME IN FROM HOMEOWNERS ACROSS THE STREET DUE TO BRIGHTNESS. THE SIGN WAS PROGRAMMED TO GO OFF BY 8 PM.
- NO ILLUMINATED SIGN ALLOWED ON STREET I'M ON.
- YES - EXAMPLES: 1 BRIGHTNESS HAS HAD TO BE REDUCED. HARD TO MEASURE IMPACT. 2 EMC MESSAGE CHANGES HAS BEEN LIMITED IN SOME JURISDICTIONS. 3 WE PREFER

- HAVING EMC SIGNS AT ALL PROPERTIES (186) BUT PROBABLY 20-25% HAVE NOT BEEN SUCCESSFUL GETTING THESE.
- HAVE TIMER TO SWITCH TO LOW ILLUMINATION NOT INSTALLED YET BUT PROBABLY WILL SET LOW ILLUMINATION FROM 9:00 PM UNTIL 6 AM TO INCREASE BULB LIFE AND REDUCE LIGHT POLLUTION. SOME POWER SAVINGS WILL OR SHOULD BE REALIZED.
- I AM CURRENTLY IN THE PROCESS OF PUTTING UP A NEW ILLUMINATED SIGN. LOCAL GOVERNMENT HAS SAID NOTHING TO ME ABOUT RESTRICTIONS OF ILLUMINATION. I HAVE BEEN FIGHTING WITH THEM ABOUT PLACEMENT OF THE SIGN BECAUSE I SET SO FAR OFF THE ROAD.
- LOCAL ORDINANCE PREVENTED ILLUMINATION.
- TYPICALLY IT IS DUE TO LOCAL ORDINANCES.
- RESTRICTED ON HOURS THE SIGN CAN BE LIT.