An Analysis of Alcohol and Tobacco Advertising on Billboards by Ethnicity and Income in Omaha, Nebraska

James R. Burmeister II
University of Nebraska at Omaha

Follow this and additional works at: https://digitalcommons.unomaha.edu/studentwork
Please take our feedback survey at: https://unomaha.az1.qualtrics.com/jfe/form/SV_8cchtFmpDyGfBLE

Recommended Citation
https://digitalcommons.unomaha.edu/studentwork/1543
An Analysis of Alcohol and Tobacco Advertising on Billboards by Ethnicity and Income in Omaha, Nebraska

A Thesis

Presented to the

School of Health, Physical Education, and Recreation

and the

Faculty of the Graduate College

University of Nebraska

In Partial Fulfillment

of the Requirements for the Degree

Master of Science

University of Nebraska at Omaha

by

James R. Burmeister II

August 1995
Thesis Acceptance

Acceptance for the faculty of the Graduate College, University of Nebraska, in partial fulfillment of the requirements for the degree Master of Science, University of Nebraska at Omaha.

Committee

Name
Richard D. Stanley
Jeremy H. Fischmeister

Department/School
HPER
Communication

Chairperson
Claudia J. Conner
Date
8/31/95
Acknowledgments

I would like to thank the Nebraska Department of Health for funding this project and the UNO Thesis Scholarship for additional funding. I would also like to thank David Corbin Ph.D. for writing the grant and for his help as committee chair in writing this thesis. Richard Stacy Ed.D. and Jeremy Lipschultz Ph.D., my other committee members, were great to work with and good sources of knowledge. Frank Hartranft was a great help in the data collection and analysis. Finally, I would like to thank my family, especially my wife Kelli and my Mom Sally, for their help on this project.
The purpose of this study was to examine the extent to which alcohol and tobacco billboard advertising and vendors are differentially targeted toward African American, Hispanic, White, and/or poor census tracts in the city of Omaha, Nebraska. Using census tract data, differences between tobacco and alcohol billboard advertising found in African American, Hispanic, and White census tracts were analyzed. Differences between high and low income neighborhoods billboard advertising of tobacco and alcohol products were also analyzed. In addition, the content of all tobacco and alcohol billboard advertisements in Omaha was summarized. Tobacco and alcohol vendor information was analyzed in the same way as the billboard advertisements. The data revealed the following conclusions. (1) African American census tracts had the highest rates of tobacco and alcohol billboards per 1,000 people, followed by Hispanic census tracts, while White census tracts had the lowest rates of tobacco and alcohol billboards per 1,000 people. (2) Low income census tracts had greater rates of tobacco and alcohol billboard advertisements per 1,000 people than high income census tracts. (3) Hispanic census tracts had the highest rates of tobacco and alcohol vendors per 1,000 people, followed by African American census tracts, while White census tracts had the lowest rates of tobacco and alcohol vendors per 1,000 people. (4) Low income census tracts had greater rates of tobacco vendors per 1,000 people than high income census tracts. High income census tracts had greater rates of alcohol vendors per 1,000 people than low income...
census tracts. (5) Billboard advertising in African American and Hispanic census tracts did not contain more racial/ethnic-specific language and models than White census tracts. (6) The trends in tobacco and alcohol billboard advertising in Omaha, Nebraska included very few models in the ads, cigarettes were the only type of tobacco advertised, a large amount of low cost cigarettes were advertised, beer advertising dominated the alcohol product advertising, no malt liquor was advertised, and tobacco and alcohol advertisements were found on 11.7% of all billboards.
# Table of Contents

List of Tables ........................................................................................................ vi

List of Figures ...................................................................................................... vii

**Chapter 1: Problem** .......................................................................................... 1
  Introduction ..................................................................................................................... 1
  Purpose .............................................................................................................................. 3
  Statement of the Problem .......................................................................................... 3

**Chapter 2: Review of Literature** ................................................................... 5
  Introduction ..................................................................................................................... 5
  Need for Research ......................................................................................................... 5
  Alcohol and Tobacco Advertising on Billboards ............................................. 8
  Summary ........................................................................................................................ 12

**Chapter 3: Methods** ......................................................................................... 13
  Procedures ..................................................................................................................... 13
  Measurement ................................................................................................................ 14

**Chapter 4: Results** .......................................................................................... 15

**Chapter 5: Discussion** ...................................................................................... 32

**Chapter 6: Conclusion** ....................................................................................... 40
  Conclusions .................................................................................................................. 40
  Recommendations ........................................................................................................ 41

References ............................................................................................................... 44
List of Tables

Table                                                                 Page

I. Demographics for Income                                                16

II. Demographics for Ethnicity                                             17

III. Product Types in Billboard Advertising by Census Tract Ethnicity      19

IV. Product Types of Billboard Advertising by Income Level of Census Tracts 21

V. Tobacco and Alcohol Vendors by Census Tract Ethnicity                   24

VI. Tobacco and Alcohol Vendors by Income Level of Census Tracts           26

VII. Summary of Cigarette Billboard Advertisements                         28

VIII. Cigarette Billboard Advertisement Slogans                           29

IX. Summary of Alcohol Billboard Advertisements                            30

X. Alcohol Billboard Advertisement Slogans                                 31


List of Figures

<table>
<thead>
<tr>
<th>Figure</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Cigarette and Alcohol Billboards Per 1,000 People by Census Tract Ethnicity</td>
<td>20</td>
</tr>
<tr>
<td>2. Cigarette and Alcohol Billboards Per 1,000 People by Income Level of Census Tracts</td>
<td>22</td>
</tr>
<tr>
<td>3. Tobacco and Alcohol Vendors Per 1,000 People by Census Tract Ethnicity</td>
<td>25</td>
</tr>
<tr>
<td>4. Tobacco and Alcohol Vendors Per 1,000 People by Income Level of Census Tracts</td>
<td>27</td>
</tr>
</tbody>
</table>
Chapter 1
Problem

Introduction

Tobacco and alcohol pose the greatest health risk of all drugs, legal and illegal. Cigarette smoking accounts for about 434,000 deaths yearly (DHHS, 1991). Alcohol accounts for an additional 100,000 deaths per year (DHHS, 1990). Disease caused by tobacco and alcohol does not strike equally over racial and economic boundaries. Lung cancer is a serious health problem for African American males, with a mortality rate of 119 per 100,000, compared to 81 per 100,000 for White males (Stotts, 1991). Government statistics reveal higher rates of cancer of the esophagus, liver cirrhosis, and fetal alcohol syndrome among African Americans than among the general public (Lee & Callcott, 1994). Throat cancers are much higher in poor communities than in wealthy communities (Koeppel, 1990). Because of these differentials there are specific Healthy People 2000 objectives for Blacks, Hispanics, American Indians/Alaskan Natives, and Southeast Asian males dealing with tobacco and alcohol (DHHS, 1992).

Advertising has a strong influence on tobacco and alcohol use. Several critics of tobacco advertising see all forms of cigarette advertising as inherently manipulative, with behavioral consequences that are harmful to the public's health (Altman, et al., 1987; Blum, 1986; Pollay, 1989). A 1994 Report of the Surgeon General indicated that cigarette advertising appeared to increase young people's risk of smoking by affecting their perceptions of the pervasiveness, image, and function of smoking (DHHS, 1994). The
report also concluded that nearly all first use of tobacco occurs before high school graduation. This finding suggested that if adolescents can be kept tobacco-free, most will never start using tobacco (DHHS, 1994). Because of the effectiveness of tobacco advertisements and the importance of keeping our youth tobacco-free, there is a Healthy People 2000 objective to eliminate or severely restrict tobacco product advertising and promotion in which youth younger than age 18 are likely to be exposed (DHHS, 1992).

With alcohol and tobacco posing such a threat to people's health plus the effectiveness of its advertising, it is important that health professionals look at the type of advertising that the alcohol and tobacco industries use. This information can help health professionals and community leaders develop appropriate strategies to combat such advertising.

Outdoor advertising has become very popular with alcohol and tobacco advertisers. The majority of top ten outdoor advertisers between 1985 and 1988 were either liquor or tobacco advertisers. Cigarette billboards have been extremely popular since the Public Health Cigarette Smoking Act of 1971, which banned all broadcast advertising of cigarettes (Schooler & Basil, 1990). Billboard advertising is believed to be attractive to the alcohol and tobacco industries due to its broad exposure and the possibility that children are exposed (Davis, 1987).

Another reason for the use of billboards for alcohol and tobacco advertising is the medium's cost effectiveness in targeting geographically contained ethnic groups (Flood, 1988; Edel, 1986).
There is evidence that liquor and tobacco billboards target minority groups and the poor (McMahon, 1989). Studies in St. Louis, San Francisco, New Jersey, San Antonio, and Baltimore have all found that tobacco and alcohol billboards are more concentrated in African American and/or Hispanic neighborhoods than White neighborhoods in their cities. A recent study in Detroit and San Antonio found poor neighborhoods to be targeted by tobacco and alcohol billboards (Lee and Callcott, 1994). The Baltimore City Council went so far as to ban outdoor ads for alcohol and tobacco in neighborhoods and commercial strips in 1993 and 1994 respectively (Bird, 1994). The Cincinnati City Council voted on June 2, 1994 to remove all outdoor tobacco advertising by June of 1996 (The New York Times, 1994).

**Purpose**

The purpose of this study was to examine the extent to which alcohol and tobacco billboard advertising and vendors are differentially targeted toward African American, Hispanic, White, and/or poor census tracts in the city of Omaha, Nebraska.

**Statement of the Problem**

The purpose of this investigation was to answer the following research questions:

1. Compared to White census tracts, do billboards in African American and Hispanic census tracts disproportionately feature alcohol and tobacco advertisements?
2. Does tobacco and alcohol billboard advertising differentially target low income census tracts compared to high income census tracts?
3. Compared to White census tracts, are more tobacco and alcohol vendors found in African American and Hispanic census tracts?

4. Are tobacco and alcohol vendors differentially found in low income census tracts compared to high income census tracts?

5. Does tobacco and alcohol billboard advertising in African American and Hispanic census tracts use racial/ethnic-specific language and models more than in White census tracts?

6. What are the present trends in tobacco and alcohol billboard advertising in the city of Omaha, Nebraska?
Chapter 2
Review of Literature

Introduction

The body of this literature review consists of four sections. The first section will address literature that supports a need for more research on the subject of tobacco and alcohol advertising targeted at minorities. The remaining section of the body will deal with the findings, methods, and limitations of the limited research on this subject. A summary of the literature analysis is included following the body.

Need for Research

Smoking kills over 434,000 and alcohol kills over 100,000 Americans each year (DHHS, 1992). Minority and low income populations consume higher rates of tobacco and alcohol and also have higher rates of tobacco and alcohol related disease and death. Lung cancer is a serious health problem for African American males, with a mortality rate of 119 per 100,000, compared to a 81 per 100,000 for White males (Stotts, 1991). Government statistics reveal higher rates of cancer of the esophagus, liver cirrhosis, and fetal alcohol syndrome among African Americans than among the general public (Lee & Callcott, 1994). Throat cancers are much higher in poor communities than wealthy (Koeppel, 1990). Because of these differences there are specific Healthy People 2000 goals for Blacks, Hispanics, American Indians/Alaskan Natives, and Southeast Asian males dealing with tobacco and alcohol (DHHS, 1992).

The tobacco industry, opposed to further regulation of cigarette advertising, argues that cigarette advertising only makes people
change brands, not start smoking (Pashupati, 1993). A majority of advertising practitioners surveyed believe that cigarette advertising persuades people to take up smoking, as well as to change brands (Crowley & Pokrywezynski, 1991). Several critics of tobacco advertising see all forms of cigarette advertising as inherently manipulative, with behavioral consequences that are harmful to the public's health (Altman, et al., 1987; Blum, 1986; Pollay, 1989). A 1994 Report of the Surgeon General indicates that cigarette advertising appears to increase young people's risk of smoking by affecting their perceptions of the pervasiveness, image, and function of smoking (DHHS, 1994). The report also concludes that nearly all first use of tobacco occurs before high school graduation (DHHS, 1994). This finding suggests that if adolescents can be kept tobacco-free, most will never start using tobacco (DHHS, 1994). Because of the effectiveness of tobacco advertisements and the importance of keeping our youth tobacco-free there is a Healthy People 2000 objective to eliminate or severely restrict tobacco product advertising and promotion in which youth younger than age 18 are likely to be exposed (DHHS, 1992).

Criticism of R. J. Reynolds' Uptown cigarettes and G. Heileman's Power Master malt liquor has led to the cancellation of these products that targeted African American consumers (Lee & Callcott, 1994). R. J. Reynolds has also been criticized for the introduction of Dakota cigarettes, aimed at low income young females, and the current use of Joe Camel, which has been said to target children (Pashupati, 1993).
In January of 1990, the Reverend Calvin Butts, an anti-tobacco crusader from New York, initiated billboard whitewashing campaigns against outdoor tobacco advertising in Harlem neighborhoods (Lee & Callcott, 1994). Campaigns soon followed in cities such as Houston, Baltimore, and Chicago to try to stop the advertising of addictive products targeted towards ethnic minorities. The Baltimore City Council banned outdoor ads for alcohol in 1993 and tobacco in 1994 that were found in neighborhoods and commercial strips (Bird, 1994). The Cincinnati City Council voted on June 2, 1994 to remove all outdoor tobacco advertising by June of 1996 (The New York Times, 1994). With cities taking such drastic measures to stop tobacco and alcohol billboard advertising there is a need to see if, in fact, the tobacco and alcohol billboards disproportionately target minorities and the poor.

Through computer database searches in the Educational Research Information Center (ERIC), Index Medicus (MEDLINE), Periodical Abstracts, PAIS International, PsycLIT, and ABI/INFORM only five studies were found that have studied the targeting of minorities by tobacco and alcohol advertisements through billboards. Four of these indicated that tobacco and alcohol billboards targeted minorities while one did not. Only one study looked at the relationship between addictive billboard ads and income. There was no previous research that looked at the distribution of tobacco and alcohol vendors. With the conflicting results, limited research on this subject, and the importance of tobacco and alcohol billboard advertising, there is a need for further research in this area.
Alcohol and Tobacco Advertising on Billboards

The earliest pieces of research to study tobacco and alcohol billboard advertising were done by the cities of St. Louis, Baltimore, and San Francisco. The studies in St. Louis and Baltimore were only found in secondary resources, so little is known about the methods. The methods and data collected for the San Francisco study were described in detail by Schooler, Basil, and Altman (1991) in later articles. The San Francisco Planning Department reported in a 1985 study that almost one in five billboards citywide advertised cigarettes or alcohol and that in African American neighborhoods the ratio was one out of three (Schooler & Basil, 1989). The survey conducted by the city of St. Louis in 1987 found four times as many outdoor alcohol and tobacco advertisements in black neighborhoods than in White ones (Barbara, 1989; Epstein, 1988). A survey of billboards in Baltimore by the Abell Foundation in 1989 found that almost 70 percent of the 2,015 billboards that were documented, advertised alcohol or tobacco and three-fourths of the tobacco and alcohol billboards were in African American, usually poor, neighborhoods (Johnson, 1992).

A study by Mitchell and Greenberg (1991) attempted to answer the questions of whether minority neighborhoods had more tobacco and alcohol billboards than White neighborhoods and whether billboards in minority neighborhoods used racial/ethnic-specific language and models more than billboards in White neighborhoods. To answer these questions they surveyed every block in four New Jersey communities that contained poor and lower middle-class African American, Hispanic, and non-Hispanic White
neighborhoods. There was no mention of the date of the data collection or whether photographic means of collection were used. Billboards considered to target African Americans and Hispanics were located in census tracts with at least two-thirds of the population being African American or Hispanic. Two-thirds of the population being White was used to define White neighborhoods with all remaining billboards classified as mixed neighborhoods. A content analysis was also made as to whether the billboard targeted African Americans/Hispanics or Whites by the type of model and/or language on the billboard. Billboards that used the English language and did not feature a model were classified as neutral.

Mitchell and Greenberg (1991) found that 76% of billboards in African American/Hispanic neighborhoods featured addictive behaviors compared to 62% and 42% in mixed and non-Hispanic White neighborhoods, respectively. Fifty-four percent of advertisements were for cigarettes and 22% for alcohol in the minority neighborhoods, 46% were for cigarettes and 32% for alcohol in the mixed neighborhoods, and 35% were for cigarettes and 7% for alcohol in the White neighborhoods. The visual content analysis found that 71% of billboards in African American/Hispanic neighborhoods used models and language targeted toward African Americans/Hispanics compared to only 25% in non-Hispanic White neighborhoods that used White models and the English language. Mitchell and Greenberg (1991) recommended that minority communities press government and billboard advertisers to stop targeting their communities with images of youth, sex, and affluence to promote deadly behaviors.
Altman, Schooler, and Basil (1991) studied 901 billboards photographed by the San Francisco Department of City Planning between May 1985 and September 1987 in areas of the city zoned as neighborhood commercial districts. For each billboard, information was collected on the size, location, and advertising content. Five trained coders examined the photographs for alcohol and tobacco advertisements and coded them for language, number and ethnicity of models, themes, and the product being promoted. Billboard data were then compared to census data on the number of White, African American, Asian, and Hispanic people within each census tract. Ethnic group predominance required that the neighborhood (census tract) be at least 30% of a particular ethnic group. Those neighborhoods that had White populations over 55% and non-White populations over 30% were coded as mixed.

Altman, Schooler, and Basil (1991) came to the following conclusions from the data: (1) Across all billboard advertising of products and services, tobacco (19%) and alcohol (17%) were the most heavily advertised, (2) African American and Hispanic neighborhoods had more tobacco and alcohol billboards than White or Asian neighborhoods, (3) African American neighborhoods had the highest per capita rate of billboard advertising, and (4) There were more African American models per 1,000 African American people than there were ethnic models for other ethnic groups. The content analysis of the billboards revealed that alcohol and tobacco advertisements use social modeling cues such as anticipated rewards, attractive models, and similarity of models to target audience.

The most recent study to look at tobacco and alcohol billboards
was done by Lee and Callcott (1994) in the cities of Detroit, Michigan and San Antonio, Texas between January and March of 1991. Detroit was picked because it has a large African American population and San Antonio was picked because it has a large Mexican American population. Survey of Buying Power (1990) was used to rank the top 10 zip code areas in each city for each ethnic group (African American vs. Anglo in Detroit; Mexican American vs. Anglo in San Antonio). Data collectors randomly sampled each of the 20 zip code areas in each city by taking pictures of the first 20 billboards they saw in each zip code that did not face an interstate. Each billboard photographed was then coded according to city (Detroit or San Antonio), zone (Anglo, African American, or Mexican American), board type (bulletin or poster), product/brand, product class (specific as durable, nondurable, service, public service, political, and others), product type, and language.

Lee and Callcott found that in Detroit the African American neighborhoods do not appear to be receiving disproportionately larger amounts of tobacco and alcohol billboard advertising than Anglo neighborhoods (1994). Detroit alcohol ads were 14% for Anglo neighborhoods and 13% for African American neighborhoods while tobacco ads were 31% for Anglo neighborhoods and 23% for African American neighborhoods. The results in San Antonio were the opposite. Mexican American neighborhoods had 6% alcohol ads and 23% tobacco ads while Anglo neighborhoods had 1% alcohol ads and 16% tobacco ads. Income was highly related to the number and location of alcohol and tobacco billboards in both cities. Lee and
Callcott (1994) concluded that income appears to be more relevant than ethnicity to the type of product advertised in these two cities.

Summary

With tobacco and alcohol posing such a great threat to people's health, the extreme nature of banning tobacco and alcohol billboard advertising plus the vigilante white washing of tobacco and alcohol billboards in some cities, there is a need to see if the advertising of tobacco and alcohol products does target certain ethnic and economic neighborhoods. The existing research has found minorities to be targeted by alcohol and tobacco billboard advertising in the locations of St. Louis, San Francisco, New Jersey, Baltimore, and San Antonio. Detroit was the only city, to date, in which the ethnic minorities studied were found to not be targeted by tobacco and alcohol advertising. The Detroit and San Antonio study was the only one to look at economic targeting of tobacco and alcohol billboards, and it was found that the poor were targeted. These results point to a need for cities to track their own outdoor advertising if groups wish to counter the tactics of alcohol and tobacco advertisers.
Chapter 3

Methods

Procedures

A list of billboard signs and their locations was obtained from the top three billboard companies serving Omaha, Nebraska. These companies, Imperial, 3-M, and Western, owned 98% of all billboards found in Omaha in 1986 according to an advertising sign study conducted by the City of Omaha Planning Department (1986). For this study a billboard was defined as outdoor advertising that is at least 6' by 12' and ridged in construction.

Three teams of student workers were assigned to separate portions of the city and given a corresponding list of billboards found in this portion of the city. Each team (composed of a driver and a map reader/photographer) was instructed to survey each billboard on their list and photograph all tobacco and alcohol advertisements on these billboards. From November 1, 1994 to January 31, 1995 the teams went to each of the 759 billboards and photographed all tobacco and alcohol advertisements and noted their addresses.

Eighty-nine tobacco and alcohol billboards were photographed. The chief investigator summarized the basic content of the 89 tobacco and alcohol billboards photographed.

A list of all tobacco and alcohol vendors in Omaha, Nebraska was obtained from the Omaha Police Department. The information from the photographs and the vendors lists were then analyzed according to 1990 Census of Population and Housing information obtained from Summary Tape File 3A (U.S. Department of Commerce, Bureau of the Census, 1992).
Measurement

A basic content summarization of all 89 tobacco and alcohol advertisements found on Omaha billboards was performed by the chief investigator. Each tobacco and alcohol billboard photograph was visually analyzed and the content recorded, which included the slogan as well as the type of product being advertised, whether there were people in the ad, the product shown, the price mentioned, the flavor/taste mentioned, whether there were animals in the ad, and whether there were cartoons in the ad.

The composition of the neighborhood in which the billboards were located was analyzed. Ethnic and economic information for each census tract in Omaha, Nebraska came from 1990 Census of Population and Housing Summary Tape File 3A Nebraska (U.S. Department of Commerce, Bureau of the Census, 1992). The ethnicity designation of each census tract was determined by its predominant ethnic group (African American, White or Hispanic). Each of the census tracts were ranked according to its percentage of ethnic population. The top ten census tracts for the African American, White, and Hispanic groups were selected.

Poverty levels of the neighborhoods were analyzed by the number and type of billboards in the neighborhoods to determine if income level was a targeting cue of tobacco and alcohol billboard advertisers. Each census tract was ranked according to the average per-capita income. The top 20 neighborhoods were put in the high income group and the bottom 20 neighborhoods were put in the low income group.
Chapter 4

Results

This section includes the responses to the six research questions posed in Chapter 2. These results are presented briefly in this chapter with an explanation and interpretation of these results in Chapter 6, Discussion.

This study surveyed 759 billboard advertisements in Omaha, Nebraska. Eighty-nine of these were advertisements for cigarettes and alcohol products equaling 11.7% of the total. Sixty-six of these were advertisements for cigarettes equaling 8.7% of the total. Twenty-three of these were advertisements for alcohol products equaling 3% of the total.

Table I shows the relevant demographics for the city of Omaha, Nebraska and for the census tracts that made-up the specific income groups. Table II shows the relevant demographics for the city of Omaha and for the census tracts that make-up the specific ethnic groups. Included in these tables is the total population, African American population, White population, Hispanic population, and range of the per capita income by census tract for all groups. Census tracts differ in total population. Because of this the billboards per 1,000 people and vendors per 1,000 people are included in the results.
<table>
<thead>
<tr>
<th>Demographics</th>
<th>Omaha</th>
<th>Low Income</th>
<th>High Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population</td>
<td>409,214</td>
<td>47,326</td>
<td>96,038</td>
</tr>
<tr>
<td>African American Population</td>
<td>46,096</td>
<td>27,391</td>
<td>1,670</td>
</tr>
<tr>
<td>White Population</td>
<td>363,862</td>
<td>17,794</td>
<td>92,453</td>
</tr>
<tr>
<td>Hispanic Population</td>
<td>11,625</td>
<td>1,659</td>
<td>1,167</td>
</tr>
</tbody>
</table>

Range of Per Capita Income by Census Tract:

- High income group consists of the 20 census tracts with the highest per capita income.
- Low income group consists of the 20 census tracts with the lowest per capita income.
- Persons of Hispanic origin may be of any race.
Table II

Demographics

<table>
<thead>
<tr>
<th>Ethnic Census Tracts&lt;sup&gt;1&lt;/sup&gt;</th>
<th>Omaha Population</th>
<th>African American Population</th>
<th>White Population</th>
<th>Hispanic Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population</td>
<td>409,214</td>
<td>18,965</td>
<td>45,733</td>
<td>23,872</td>
</tr>
<tr>
<td>African American Population</td>
<td>46,096</td>
<td>15,820</td>
<td>209</td>
<td>1,537</td>
</tr>
<tr>
<td>White Population</td>
<td>363,862</td>
<td>2,711</td>
<td>45,020</td>
<td>20,021</td>
</tr>
<tr>
<td>Hispanic Population</td>
<td>11,625</td>
<td>244</td>
<td>609</td>
<td>3,731</td>
</tr>
<tr>
<td>Range of Per Capita Income</td>
<td>$4,206 - $4,206</td>
<td>$4,206 - $14,173</td>
<td>$6,921 -</td>
<td></td>
</tr>
<tr>
<td>Income by Census Tract</td>
<td>$37,331</td>
<td>$7,808</td>
<td>$37,331</td>
<td>$10,740</td>
</tr>
</tbody>
</table>

<sup>1</sup>Census tracts were ranked according to the percentage of the different ethnic groups. The 10 census tracts with the highest percentages of a particular group were categorized as that group. The range of African Americans in census tracts of largest percentage was 69% to 97%. The range of Whites in census tracts of largest percentage was 98% to 99%. The range of Hispanics in census tracts of largest percentage was 11% to 28%.

<sup>2</sup>Persons of Hispanic origin may be of any race.

Omaha had a total of 759 billboards with 89 of these being advertisements for cigarettes and alcohol products equaling 11.7% of the total. There were 1.85 billboards per 1,000 people in Omaha and .22 cigarette and alcohol billboards per 1,000 people in Omaha. Sixty-six of these or 8.7% of the total billboards advertisements were for cigarettes which equaled .16 cigarette ads per 1,000 people and 23 or 3% of the total advertised alcohol equaling .06 alcohol ads per 1,000 people. The remaining 670 billboards, 1.64 ads per 1,000 people or 88.3% of the total, advertised other products and services.

Table III outlines the results of the product types on billboard advertising within the 10 census tracts for each ethnic group which contained the largest percentage of African Americans, Whites, and
Hispanics. The African American census tracts had a total of 47 billboards equaling 2.48 billboards per 1,000 people. Nine or 19.2% of these advertised cigarettes and alcohol equaling .47 cigarette and alcohol advertisements per 1,000 people in these 10 census tracts. Seven or 14.9% of the total billboard ads were for cigarettes equaling .37 cigarette ads per 1,000 people. Two or 4.3% of the total billboard ads were for alcohol equaling .11 ads per 1,000 people. The remaining 80.9% or 38 billboards advertised other products equaling 2 ads per 1,000 people.

The White census tracts had a total of 46 billboards equaling 1.01 billboards per 1,000 people. Five or 10.9% of the total billboard advertisements were for cigarettes equaling .11 cigarette advertisements per 1,000 people. No alcohol ads were found. The remaining 89.1% or 41 billboards advertised other products equaling .9 ads per 1,000 people.

The Hispanic census tracts had a total of 59 billboards equaling 2.47 billboards per 1,000 people. Eight or 13.6% of these advertised cigarettes and alcohol products equaling .34 billboards per 1,000 people in these 10 census tracts. Five or 8.5% of the total billboard ads were for cigarettes equaling .21 cigarette ads per 1,000 people. Three or 5.1% of the total billboard ads were for alcohol equaling .13 ads per 1,000 people. The remaining 86.4% or 51 billboards advertised other products equaling 2.14 ads per 1,000 people.
Table III
Product Types in Billboard Advertising by Census Tract Ethnicity

Ethnicity Of Census Tracts

<table>
<thead>
<tr>
<th>Product Type</th>
<th>African American</th>
<th>White</th>
<th>Hispanic</th>
<th>Omaha</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>(%)</td>
<td>Billboards per 1,000</td>
<td>Number</td>
</tr>
<tr>
<td>Cig.-Alcohol</td>
<td>9</td>
<td>19.2%</td>
<td>.47</td>
<td>5</td>
</tr>
<tr>
<td>Combined</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cigarette</td>
<td>7</td>
<td>14.9%</td>
<td>.37</td>
<td>5</td>
</tr>
<tr>
<td>Alcohol</td>
<td>2</td>
<td>4.3%</td>
<td>.11</td>
<td>0</td>
</tr>
<tr>
<td>All Others</td>
<td>38</td>
<td>80.9%</td>
<td>2.00</td>
<td>41</td>
</tr>
<tr>
<td>Total</td>
<td>47</td>
<td>100%</td>
<td>2.48</td>
<td>46</td>
</tr>
</tbody>
</table>

1Census tracts were ranked according to the percentage of the different ethnic groups. The 10 census tracts with the highest percentages of a particular group were categorized as that group. The range of African Americans in census tracts of largest percentage was 69% to 97%. The range of Whites in census tracts of largest percentage was 98% to 99%. The range of Hispanics in census tracts of largest percentage was 11% to 28%.

The African American and Hispanic census tracts had higher numbers of cigarette and alcohol billboards per 1,000 people compared to the White census tracts. The African American census tracts had four times the number of cigarette and alcohol billboards per 1,000 people than the White census tracts. The Hispanic census tracts had three times the cigarette and alcohol billboards per 1,000 people than the White census tracts. These differences are shown graphically in figure 1.
Figure 1
Cigarette and Alcohol Billboards Per 1,000 People
by Census Tract Ethnicity

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>Billboards Per 1,000 People</th>
</tr>
</thead>
<tbody>
<tr>
<td>African American</td>
<td>0.47</td>
</tr>
<tr>
<td>White</td>
<td>0.11</td>
</tr>
<tr>
<td>Hispanic</td>
<td>0.34</td>
</tr>
</tbody>
</table>

Census tracts were ranked according to the percentage of the different ethnic groups. The 10 census tracts with the highest percentages of a particular group were categorized as that group. The range of African Americans in census tracts of largest percentage was 69% to 97%. The range of Whites in census tracts of largest percentage was 98% to 99%. The range of Hispanics in census tracts of largest percentage was 11% to 28%.

The 20 census tracts with the highest per capita incomes and the 20 census tracts with the lowest per capita incomes were selected to make up the income groups. Table IV outlines the findings of the types of products found on billboards in the high and low income census tracts. The low income group had a total of 110 billboards within the census tracts equaling 2.32 billboards per 1,000 people. Eighteen or 16.4% of these advertised cigarettes and alcohol, equaling .38 ads per 1,000 people. Fifteen or 13.6% of the total, advertised cigarettes, equaling .32 cigarette ads per 1,000 people. The remaining three ads were for alcohol equaling 2.7% of the total and .06 ads per 1,000 people. The remaining 92 or 83.6% of the
billboards contained advertisements for other products with 1.94 ads per 1,000 people.

The high income group had 85 billboards equaling .89 billboards per 1,000 people. Ten of these contained advertisements for cigarettes and alcohol amounting to 11.8% of the total and .1 addictive ads per 1,000 people. Seven cigarette ads amounted to 8.2% of the total and .07 ads per 1,000 people. Alcohol advertisements numbered three at 3.5% of the total and .03 alcohol ads per 1,000 people. The remaining 75 or 88.2% of the billboards contained advertisements for other products and services with .78 ads per 1,000 people.

Table IV

Product Types of Billboard Advertising by Income

<table>
<thead>
<tr>
<th>Product Type</th>
<th>Low (%)</th>
<th>High (%)</th>
<th>Omaha (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Billboards per 1,000</td>
<td>Number</td>
</tr>
<tr>
<td>Cig.-Alcohol Combined</td>
<td>18</td>
<td>16.4%</td>
<td>10</td>
</tr>
<tr>
<td>Cigarette</td>
<td>15</td>
<td>13.6%</td>
<td>7</td>
</tr>
<tr>
<td>Alcohol</td>
<td>3</td>
<td>2.7%</td>
<td>3</td>
</tr>
<tr>
<td>All Others</td>
<td>92</td>
<td>83.6%</td>
<td>75</td>
</tr>
</tbody>
</table>

Total 110 100% 2.32 85 100% .89 759 100% 1.85

1High income group consists of the 20 census tracts with the highest per capita income. Low income group consists of the 20 census tracts with the lowest per capita income. The range of high income census tracts per capita incomes was $17,494 to $37,331. The range of low income census tracts per capita incomes = $4,206 to $7,909.
The low income census tracts had higher numbers of cigarette and alcohol billboards per 1,000 people compared to the high income census tracts. The low income census tracts had over three times the number of cigarette and alcohol billboards per 1,000 people than the high income census tracts. These differences are shown graphically in figure 2.

**Figure 2**

*Cigarette and Alcohol Billboards Per 1,000 People by Income Level of Census Tracts*

1High income group consists of the 20 census tracts with the highest per capita income. Low income group consists of the 20 census tracts with the lowest per capita income. The range of high income census tracts per capita incomes was $17,494 to $37,331. The range of low income census tracts per capita incomes = $4,206 to $7,909.

Information on tobacco and alcohol vendors was analyzed similarly to the billboard information. The same ethnic and economic groups were used to analyze the distribution of vendors of tobacco and alcohol products that were used for the billboards.
There were 1,753 total vendors of tobacco and alcohol in Omaha, Nebraska equaling 4.28 vendors per 1,000 people. Tobacco vendors made-up 853 of these with 2.08 vendors per 1,000 people. Alcohol vendors numbering 900 equaled 2.2 vendors per 1,000 people in Omaha.

Table V outlines the tobacco and alcohol vendors by the ethnicity of the group of census tracts. In the ten African American census tracts 80 total tobacco and alcohol vendors were found, equaling 4.22 vendors per 1,000 people. Forty-seven of these were tobacco vendors with 2.48 vendors per 1,000 people. The remaining 33 were alcohol vendors with 1.74 vendors per 1,000 people.

The ten White census tracts had 125 total tobacco and alcohol vendors equaling 2.73 vendors per 1,000. Fifty-six of these were tobacco vendors equaling 1.22 vendors per 1,000 people. The remaining 69 were alcohol vendors with 1.51 vendors per 1,000 people.

The ten Hispanic census tracts had 200 tobacco and alcohol vendors with 8.38 vendors per 1,000 people. Tobacco vendors totaled 93 equaling 3.9 vendors per 1,000 people. Alcohol vendors numbered 107 with 4.48 vendors per 1,000 people living in these census tracts.
Table V

<table>
<thead>
<tr>
<th>Ethnicity of Census Tracts</th>
<th>African American</th>
<th>White</th>
<th>Hispanic</th>
<th>Omaha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number Vendors per 1,000</td>
<td>Tobacco Vendors</td>
<td>47.248</td>
<td>56.122</td>
<td>93.3.90</td>
</tr>
<tr>
<td>Alcohol Vendors per 1,000</td>
<td>33.1.74</td>
<td>69.1.51</td>
<td>107.4.48</td>
<td>900.2.20</td>
</tr>
<tr>
<td>Total Tobacco and Alcohol Vendors</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1 Census tracts were ranked according to the percentage of the different ethnic groups. The 10 census tracts with the highest percentages of a particular group were categorized as that group. The range of African Americans in census tracts of largest percentage was 69% to 97%. The range of Whites in census tracts of largest percentage was 98% to 99%. The range of Hispanics in census tracts of largest percentage was 11% to 28%.

The African American and Hispanic census tracts had higher numbers of tobacco and alcohol vendors per 1,000 people compared to the White census tracts. The African American census tracts had nearly twice the number of tobacco and alcohol vendors per 1,000 people than the White census tracts. The Hispanic census tracts had three times the tobacco and alcohol vendors per 1,000 people than the White census tracts. These differences are shown graphically in figure 3.
Figure 3
Tobacco and Alcohol Vendors Per 1,000 People
by Census Tract Ethnicity

<table>
<thead>
<tr>
<th>Ethnicity of Census Tracts</th>
<th>Vendors Per 1,000 People</th>
</tr>
</thead>
<tbody>
<tr>
<td>African American</td>
<td>4.22</td>
</tr>
<tr>
<td>White</td>
<td>2.73</td>
</tr>
<tr>
<td>Hispanic</td>
<td>8.38</td>
</tr>
</tbody>
</table>

Table VI outlines the tobacco and alcohol vendors by the census tracts divided into high and low income groups. The low income group had 194 tobacco and alcohol vendors equaling 4.1 vendor per 1,000 people in the 20 census tracts with the lowest per capita incomes. Tobacco vendors numbered 110 with 2.32 vendors per 1,000 people. Alcohol vendors numbered 84 equaling 1.77 vendors per 1,000 people.

The high income group had 326 tobacco and alcohol vendors with 3.39 vendors for every 1,000 people. Tobacco vendors made-up 135 of these equaling 1.41 vendors per 1,000 people. The

---

1 Census tracts were ranked according to the percentage of the different ethnic groups. The 10 census tracts with the highest percentages of a particular group were categorized as that group. The range of African Americans in census tracts of largest percentage was 69% to 97%. The range of Whites in census tracts of largest percentage was 98% to 99%. The range of Hispanics in census tracts of largest percentage was 11% to 28%.
remaining 191 were alcohol vendors with 1.99 vendors for every 1,000 people in the 20 census tracts with the highest incomes.

Table VI

Tobacco and Alcohol Vendors by
Income Level of Census Tracts

<table>
<thead>
<tr>
<th>Income Level</th>
<th>Low Number</th>
<th>High Number</th>
<th>Omaha Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tobacco Vendors</td>
<td>110</td>
<td>135</td>
<td>853</td>
</tr>
<tr>
<td>Alcohol Vendors</td>
<td>84</td>
<td>191</td>
<td>900</td>
</tr>
<tr>
<td>Total Tobacco and Alcohol Vendors</td>
<td>194</td>
<td>326</td>
<td>1753</td>
</tr>
</tbody>
</table>

^High income group consists of the 20 census tracts with the highest per capita income. Low income group consists of the 20 census tracts with the lowest per capita income. The range of high income census tracts per capita incomes was $17,494 to $37,331. The range of low income census tracts per capita incomes = $4,206 to $7,909.

The low income census tracts had higher numbers of tobacco vendors per 1,000 people compared to the high income census tracts. The low income census tracts had 2.32 tobacco vendors per 1,000 people while the high income census tracts had 1.41 tobacco vendors per 1,000 people. High income census tracts had higher numbers of alcohol vendors per 1,000 people compared to high income census tracts. High income census tracts had 1.99 alcohol vendors per 1,000 people while the low income census tracts had 1.77 alcohol vendors per 1,000 people. These differences are shown graphically in figure 4.
Figure 4

Tobacco and Alcohol Vendors Per 1,000 People
by Income Level of Census Tracts

<table>
<thead>
<tr>
<th>Income Level of Census Tracts</th>
<th>Tobacco Vendors</th>
<th>Alcohol Vendors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Income</td>
<td>2.32</td>
<td>1.77</td>
</tr>
<tr>
<td>High Income</td>
<td>1.41</td>
<td>1.99</td>
</tr>
</tbody>
</table>

Vendors Per 1000 People

1High income group consists of the 20 census tracts with the highest per capita income. Low income group consists of the 20 census tracts with the lowest per capita income. The range of high income census tracts per capita incomes was $17,494 to $37,331. The range of low income census tracts per capita incomes = $4,206 to $7,909.

Table VII outlines the summary of the 66 tobacco advertisements found in Omaha, Nebraska. All of the 66 tobacco ads were for cigarettes. The product or packaging was shown on 49 of the ads which was 74.2% of the 66 total. Flavor or taste of the cigarettes was mentioned on 48 of the 66 ads which equaled 72.7% of the total. Price of the product was mentioned on 34 of the 66 cigarette ads equaling 51.5% of the total. Animals were found on 17 of the cigarette ads which was 25.8% of the total. Twelve of the cigarette ads advertised menthol cigarettes which was 18.2% of the total. Cartoons were seen on three of the ads equaling 4.5% of the total. People were found on three of the ads which also equaled 4.5%
of the total. All of the cigarette ads with people were found in White census tracts with White models.

**Table VII**

<table>
<thead>
<tr>
<th>Summary of Cigarette Billboard Advertisements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Content of Cigarette Billboards</td>
</tr>
<tr>
<td>Product shown</td>
</tr>
<tr>
<td>Flavor/Taste</td>
</tr>
<tr>
<td>Price</td>
</tr>
<tr>
<td>Animals</td>
</tr>
<tr>
<td>Menthol</td>
</tr>
<tr>
<td>Cartoons</td>
</tr>
<tr>
<td>People</td>
</tr>
</tbody>
</table>

Table VIII is a list of the slogans that appeared on the 66 tobacco advertisements that were analyzed in this study. There was no notice of any racially specific language in any of the slogans.
### Table VIII

<table>
<thead>
<tr>
<th>Cigarette Slogans</th>
<th>Billboard Advertisement Slogans</th>
<th>Number of Billboards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Real Taste. Real Deal. GPC.</td>
<td></td>
<td>1 9</td>
</tr>
<tr>
<td>KOOL.</td>
<td></td>
<td>1 2</td>
</tr>
<tr>
<td>You Can't Rush Smooth Flavor. Winston Select.</td>
<td></td>
<td>8</td>
</tr>
<tr>
<td>Your Basic Discovery. Tastes Good. Costs Less.</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>Take Your Time. We Did. Winston Select.</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>Your Basic Destination. Tastes Good. Costs Less.</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>Camel Genuine Taste.</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Your Basic Attractions. Tastes Good. Costs Less.</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Come to Where the Flavor is Marlboro.</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Marlboro Country.</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Your Basic Rights.</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Tastes Good. Costs Less.</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Your Basic Deal. Tastes Good. Costs Less.</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>You Can't Rush Smooth Flavor. Select Tobaccos.</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Perfectly Aged.</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>You've Got MERIT.</td>
<td></td>
<td>1</td>
</tr>
</tbody>
</table>

Table IX outlines the summary of the 23 alcohol advertisements found in Omaha, Nebraska. The product or packaging was shown on 22 of the ads which was 95.7% of the 23 total. Nineteen or 82.6% of the alcohol ads were for beer and the remaining four or 17.4% were for hard liquor. Animals were found on 16 of the alcohol ads which was 69.6% of the total. Flavor or taste of the alcohol was mentioned on 2 of the 23 alcohol ads which equaled 8.7%
of the total. There were no cartoons, people or price mentioned in any of the alcohol ads.

Table IX

<table>
<thead>
<tr>
<th>Content of Alcohol Billboards</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product shown</td>
<td>22</td>
</tr>
<tr>
<td>Beer</td>
<td>19</td>
</tr>
<tr>
<td>Animals</td>
<td>16</td>
</tr>
<tr>
<td>Hard liquor</td>
<td>4</td>
</tr>
<tr>
<td>Flavor/Taste</td>
<td>2</td>
</tr>
<tr>
<td>Cartoons</td>
<td>0</td>
</tr>
<tr>
<td>People in the ad</td>
<td>0</td>
</tr>
<tr>
<td>Price</td>
<td>0</td>
</tr>
</tbody>
</table>

Table X is a list of the slogans that appeared on the 23 alcohol advertisements that were analyzed in this study. There was no notice of any racially specific language in any of the slogans.
<table>
<thead>
<tr>
<th>List of Slogans - Alcohol</th>
<th>Alcohol</th>
<th>Billboard</th>
<th>Advertisement</th>
<th>Slogans</th>
<th>Number of Billboards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hey, the Dog's Red, Not the Beer. Red Dog Beer. You Are</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1 4</td>
</tr>
<tr>
<td>Your Own Dog.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Great Taste, Less Filling, Combined. Miller Lite.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>It's Not Too Late to Have a Nice Day. Windsor Canadian.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Red Wolf.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Budweiser.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Don't Look Back. (Your Day is Behind You.)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Windsor Canadian.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The Day You Thought Would Never End, Did.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Windsor Canadian.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Chapter 5

Discussion

The purpose of this study was to examine the extent to which alcohol and tobacco billboard advertising and vendors are differentially targeted toward African American, Hispanic, White, and/or poor neighborhoods in the city of Omaha, Nebraska. This section includes some speculations which attempt to provide possible explanations for the results. Differences between the results of this study and previous studies are also discussed.

Omaha had a much lower percentage of total billboards that advertised tobacco and alcohol than previous studies in other cities. Tobacco and alcohol advertising made-up 11.7% of the total billboards analyzed in Omaha while Baltimore had 70% in 1989, four New Jersey communities had 66%, and San Francisco had 36% in 1987, (Altman, Schooler, & Basil, 1991; Mitchell & Greenberg, 1991; Johnson, 1992). One possible explanation for this may be that the controversy that has surrounded tobacco and alcohol advertising lately has made billboard advertising less attractive to advertisers of tobacco and alcohol products. If this is so, the work of anti-addictive advocates may be working. It may, however, be a difference in the cities themselves or the time of year. Tobacco and alcohol advertisers may target larger cities such as Baltimore, San Francisco, and New Jersey because they have larger population densities than Omaha. Many advertisers only target the top 50 markets in the United States. Omaha is not in the top 50 markets while these other larger cities are. The fact that an election campaign was going on during the data collection, as well as the fact that it was the winter,
may have had something to do with the low percentage of tobacco and alcohol billboards in Omaha.

The differences by ethnicity of census tracts supports the previous findings in San Francisco, St. Louis, Baltimore, New Jersey, and San Antonio that found minority neighborhoods to have more billboard advertising for tobacco and alcohol products than White neighborhoods. Detroit was the only city in which minority neighborhoods did not have more tobacco and alcohol billboard ads than White neighborhoods.

Why are more tobacco ads found on billboards in African American census tracts than White census tracts when White people smoke more than African Americans? One would think that if the tobacco companies really only want to get people to switch brands they would want to advertise to the ethnic group that smokes the most. The tobacco companies may be targeting African American census tracts to increase sales to African Americans that do not smoke.

The findings dealing with income level of census tracts and tobacco and alcohol billboards support the only other research to look at income and billboard advertising that was done in San Antonio and Detroit which found low income neighborhoods to have more tobacco and alcohol ads than middle and high income neighborhoods. The fact that the African American and Hispanic census tracts had lower per capita incomes than the White census tracts may be why there were more tobacco and alcohol ads in these areas.
There is a need for further research in the area of tobacco and alcohol vendor distribution. This is the first study to look at the differences in the number of vendors by ethnic and economic status of census tracts. More tobacco and alcohol vendors per 1,000 people were found in African American and Hispanic census tracts than White census tracts. The older neighborhoods in which the African American and Hispanic census tracts are found may have more tobacco and alcohol vendors because they have larger numbers of smaller neighborhood stores, while the suburbs in which the White census tracts are found may have fewer but larger stores that sell tobacco and alcohol.

Low income census tracts had more tobacco vendors per 1,000 people than high income census tracts, but high income census tracts had more alcohol vendors per 1,000 people than low income census tracts. This was the only category in which economically disadvantaged census tracts had less of either tobacco or alcohol vendors or advertising. Getting a license to sell alcohol involves a political process while getting a license to sell tobacco is only a matter paying a fee and filling out paperwork. Since more influential people live in the high income census tracts, they may be able to get a license to sell alcohol easier than people with less political influence who live in the low income census tracts. There may also be more sales of alcohol by unlicensed vendors in the low income census tracts because of the political process it takes to get a license to sell alcohol.

Tobacco and alcohol vendor information is important because there is not only greater access to these products in census tracts
with more vendors, but there is also greater access to point of purchase advertising in the stores. Point of purchase advertising are the ads that cover the interior and exterior of many of the convenience stores, grocery stores, and specialty shops that sell tobacco and alcohol. There is a potential for more point of purchase advertising for tobacco and alcohol in the census tracts with a greater number of vendors.

Further research into the content and distribution of tobacco and alcohol point of purchase advertising is needed. Tobacco and alcohol advertisers may be spending more money on point of purchase advertising rather than billboard ads. Many of these point of purchase ads are interesting and clearly visible to young people which could promote use of tobacco and alcohol to young people.

There were no tobacco and alcohol billboards with racially specific language and the only three models on the tobacco and alcohol billboards were White and were found in White census tracts. These findings contradict the findings of Lee and Callcott (1994) in San Antonio and Altman, Schooler, and Basil (1991) in San Francisco. The San Francisco study found more African American models on tobacco and alcohol billboards per 1,000 African American people than there were ethnic models for other ethnic groups. They found 28% of all tobacco and alcohol billboards in San Francisco to have models on the ads while Omaha had no models on alcohol billboards and three White models on tobacco ads equaling 4.5% of all tobacco billboards. This lack of people on the tobacco and alcohol advertisements was one of the big surprises because there were so many people on the ads in San Francisco and New Jersey. The recent
controversy surrounding tobacco and alcohol advertising and the fact that the data were collected in the winter may have contributed to the lack of models in the ads. Mitchell & Greenberg (1991) found 71% of billboards in minority neighborhoods to use models or language clearly targeted towards Blacks and/or Hispanics and only 25% in White neighborhoods that used White models and the English language to target Whites. The study in San Antonio found that a large portion of the tobacco and alcohol billboard ads used Spanish to target Hispanics. The reason there were no Spanish tobacco and alcohol billboard ads in Omaha may be because only 2.8% of the total population is Hispanic.

The lack of models and racially specific language on the Omaha tobacco and alcohol billboards could be explained by the greater populations of minorities found in the other cities. Further research in cities with greater minority populations is needed to see if the difference seen in Omaha is because of the recent controversy surrounding the tobacco and alcohol billboard advertisements or because of the small percentage of minority residence in Omaha.

All of the tobacco billboard ads were for cigarettes while the alcohol ads were 82.6% beer and 17.4% hard liquor. Omaha has historically been a brewery city and a beer drinking city. This could explain the large number of beer ads compared to other types of alcohol. Fourteen of the 23 alcohol ads were for Red Dog Beer, which was a new product at the time. This may have been a "launch" for Red Dog Beer and may be the reason there were so many beer advertisements at this time. The fact that no malt liquor or cognac ads were found in African American census tracts was different than
the previous research in San Francisco. Omaha's 11.3% African American population may be too small for alcohol advertisers to target them with malt liquor or cognac advertising.

Tobacco and alcohol ads differed slightly in content. The product was shown on 95.7% of the alcohol billboards and 74.2% of the tobacco ads. Flavor or taste was mentioned on 72.7% of the tobacco billboards, while flavor or taste was only mentioned on 8.7% of the alcohol advertisements. Price was mentioned on 51.5% of the tobacco ads. This was a big category that pointed out a specific segment of the cigarette market that uses its low cost as a selling point. This low cost segment of the tobacco market came about after increases in taxation on cigarettes. These cigarettes have more nicotine than regular cigarettes, making them a greater value, and also more highly addictive at the same time (Lee & Callcott, 1994).

Future studies that look at point of purchase advertising of tobacco and alcohol products should include a content analysis. This would help to see if the tobacco and alcohol advertisers are replacing the models and social cues previously found on billboards with point of purchase advertising. From casually looking at point of purchase advertising, there seemed to be many models of images of youth, sex, and adventure which may appeal to young people. Only studies of this advertising can verify this.

The findings of this study should be interpreted in light of the following points. One limitation of this study is that there is no comprehensive list of all billboard signs for Omaha, Nebraska. However, an advertising sign study done by the City of Omaha Planning Department in 1986 found the top three companies to
comprise approximately 98% of all the billboards in Omaha. A second limitation is that this study only looks at one community. The results for Omaha may be different than what would have been found in other cities. The third limitation is that the pattern of billboard advertising changes over time. The results of this study may not represent patterns of the future or past. The fact that the billboards were photographed in the winter during an election campaign may reflect the seasonal differences in tobacco and alcohol billboard advertising. Some of the billboards analyzed in this study face busy streets and freeways which target people from other parts of the city as well as the population found in the census tract. This study did not account for this. The Hispanic census tracts in Omaha did not have a majority of Hispanic people living there. Non-Hispanic White people made up the majority in the Hispanic census tracts. A final limitation of this study is that the neighborhoods used in this study have various zoning designations. There may be more or less billboards and/or vendors in a neighborhood because of its zoning designation. Census tracts with more commercial zoning as opposed to residential may have more billboard advertising and/or vendors simply because of the zoning.

Anti-tobacco and alcohol advocates and minority community leaders should be made aware of the results of this study and should press to spread the results to the media, local, state, and national governments and policy makers. These results could be used as a framing issue and brought into the media and government hearings. Minority and poor neighborhoods and their supporters could also talk directly to the billboard advertisers of tobacco and alcohol
products to urge them to stop targeting their communities. Cities such as Baltimore and Cincinnati have seen the problem in their streets and have gone so far as to ban billboards for tobacco and alcohol products.
Chapter 6

Conclusion

Conclusions

Within the limitations of this study the following conclusions have been drawn with regard to billboard advertising and vendor distribution in the city of Omaha, Nebraska. The research questions are answered one by one.

1. Compared to White census tracts, do billboards in African American and Hispanic census tracts disproportionately feature alcohol and tobacco advertisements? African American census tracts had the highest rates of tobacco and alcohol billboards per 1,000 people, followed by Hispanic census tracts, while White census tracts had the lowest rates of tobacco and alcohol billboards per 1,000 people.

2. Does tobacco and alcohol billboard advertising differentially target low income census tracts compared to high income census tracts? Low income census tracts had greater rates of tobacco and alcohol billboard advertisements per 1,000 people than high income census tracts.

3. Compared to White census tracts, are more tobacco and alcohol vendors found in African American and Hispanic census tracts? Hispanic census tracts had the highest rates of tobacco and alcohol vendors per 1,000 people, followed by African American census tracts, while White census tracts had the lowest rates of tobacco and alcohol vendors per 1,000 people.
4. Are tobacco and alcohol vendors differentially found in low income census tracts compared to high income census tracts? Low income census tracts had a greater rates of tobacco vendors per 1,000 people than high income census tracts. High income census tracts had greater rates of alcohol vendors per 1,000 people than low income census tracts.

5. Does tobacco and alcohol billboard advertising in African American and Hispanic census tracts use racial/ethnic-specific language and models more than in White census tracts? Billboard advertising in African American and Hispanic census tracts did not contain more racial/ethnic-specific language and models than White census tracts.

6. What are the present trends in tobacco and alcohol billboard advertising in the city of Omaha, Nebraska? The trends in tobacco and alcohol billboard advertising in Omaha, Nebraska included very few models in the ads, cigarettes were the only type of tobacco advertised, a large amount of low cost cigarettes were advertised, beer advertising dominated the alcohol product advertising, no malt liquor was advertised, and tobacco and alcohol advertisements were found on 11.7% of all billboards.

Recommendations

Anti-tobacco and alcohol advocates and minority community leaders should be made aware of the results of this study and should press to spread the results to the media, local, state, and national governments and policy makers. These results could be used as a framing issue and brought into the media and government hearings.
Minority and poor neighborhoods and their supporters could also talk directly to the billboard advertisers of tobacco and alcohol products to urge them to stop targeting their communities. People have a right to know how the tobacco and alcohol industries advertise their products.

With most smokers and many drinkers starting before the age of 18, educators should point out the tactics of the tobacco and alcohol industries to students so they can make an informed decision about using these products now or in the future. Children form images of smoking and drinking before they can legally use and purchase these products. Children should know the tactics of advertisers as well as the dangers of using these products.

Future research into tobacco and alcohol billboard advertising should be conducted in other cities where a diverse group of minorities can be found. Future studies should be designed so that we may be able to better understand whether the differences seen between Omaha and other cities' billboard advertising is due to the city, time of year, or the political campaigns at the time of data collection. The question that needs to be answered is whether tobacco and alcohol advertisers are cleaning up their tobacco and alcohol billboard advertising, or is Omaha too small with too few minority residents to attract certain advertisers. The limitations of this study, such as time of year and election campaign going on at the time of data collection, should be minimized in future studies. Replication of the findings of income differences in tobacco and alcohol billboard advertising is needed in other cities also. Future
studies should also include any other underprivileged groups of consumers found in other cities.

Future research should analyze tobacco and alcohol vendor distribution by ethnicity and income of neighborhood in other cities. The point of purchase advertising found in these tobacco and alcohol vendors should be studied to see if tobacco and alcohol advertisers are moving more money and controversial advertisements to the stores and away from billboards.
References


Omaha Planning Department (1986). Advertising Sign Study.


San Francisco Department of City Planning (1986). Billboard Survey.


