

An Economic Impact and
Market Research Study of the
University of North Carolina
vs. Boston College
Football Game

November 5, 2005



Report Prepared by:

Nathan Tomasini, Ph.D.
Department of Exercise & Sport Science
CB# 8605, 315 Woollen Gym
University of North Carolina
Chapel Hill, NC 27599
(919) 843-0336
tomasini@email.unc.edu

Table of Contents

1. Executive Summary	3
3. Itemization of Economic Impact	4
4. Demographic Analysis	5
Gender	5
Age	5
Income	6
4. Market Research Analysis	7
Residency Status	8
Affiliation Status	9
Number of Games Attended	10
Lodging	11
5. Satisfaction Levels	12
Concessions	12
Parking	12
Promotions	14
Stadium Staff	14
Videoboard	15
Overall Game Atmosphere	15
Tar Heel Town	16
Respondent Comments	17
6. Conclusions	18

Executive Summary

The purpose of this research is twofold. The first section of this report provides a summary of the economic impact to the city of Chapel Hill and Orange County as a result of hosting the UNC vs. BC game. The second purpose is to provide a market research analysis of the game attendees, including demographics, residency and lodging status, and attendees satisfaction levels with various components of the event.

This study was conducted on-site at Kenan Stadium on November 5, 2005. A research team of 20 collected email addresses of attendees that agreed to participate in the study. The survey tool utilized to gather the data was a 21-question survey that was sent via email on Wednesday, November 9 to 812 attendees. A total of 349 completed surveys were returned for a response rate of 43%. Children under the age of 18 were not allowed to complete the survey due to their spending is usually the result of parent spending. The results of the study were extrapolated to the total attendance at the UNC vs. BC football game. The results of this study provide (1) information defining the value associated with hosting the UNC vs. BC football game, (2) information applicable for business marketing plans and initiatives, (3) information pertaining to solicitation and/or maintenance regarding presenting sponsorships, and (4) information allowing decision makers a more informed position regarding the bid solicitation operation of similar events.

The total economic impact on the Chapel Hill area economy is conservatively estimated at **\$6,759,609**. The UNC vs. BC football game attracted 48,000 attendees to the game, with approximately 43,440 out-of-town visitors (90.5%). The estimations only include non-Chapel Hill and Orange County residents, due to the belief that residents of Chapel Hill and Orange County will spend their discretionary income within the city limits, and to calculate their spending within the total would misrepresent the findings. On average, each out-of-town spectator contributed **\$155.60** to the local economy. The average group size was 3.3 people per group. Total tax revenue generated for the city of Chapel Hill and Orange County, and the state of North Carolina was estimated at **\$452,898**. This figure includes county (2.5%) and state (4.5%) sales tax, as well as the county (5%) lodging tax.

Spending by out-of-town visitors has a secondary ripple effect on the Chapel Hill economy. Those who receive this spending in turn spend a portion of their revenues locally. The process of re-spending goes on, with diminishing impact on each subsequent round. This study will use a conservative sales multiplier of 1.3, meaning that for every dollar generated from game spending, an additional 30 cents is potentially generated indirectly in the local economy. The sales multiplier of 1.3 equates to **\$1,348,814** additional dollars spent in the city of Chapel Hill and Orange County. Multiplier ranges from 1.1 to 2.5 are commonly used in economic models. The more conservative multiplier was used because Chapel Hill is a semi-rural community¹.

¹ Coughlin, C. C. & Mandelbaum, T. B. (1991). *A Consumer's Guide to Regional Economic Multipliers*. Federal Reserve Bank of St. Louis (73).

Itemization of Economic Impact

Listed below are total expenditures by out-of-town spectators by category, application of the sales multiplier, and application of the sales and lodging taxes. Estimates provided were utilized by extrapolation of data provided by respondents. The Itemization is divided into Chapel Hill and Orange County, and Durham. Because the Durham County line is close to Orange County there was a leakage of expenditures to the Durham economy. This figure represents data obtained for spending only on lodging in Durham and retail and food expenses at Southpoint Mall. Total Expenditures for Durham were not calculated.

ITEM		EXPENDITURES	DURHAM
Lodging (Hotels)		\$ 908,352	\$585,648
Retail (Stadium & Tourism)		\$ 526,747	\$ 53,449
Food/Dining (Stadium & Tourism)		\$1,510,947	\$ 64,556
Tickets		\$1,550,000	\$ N/A
<hr/>			
Total Expenditures		\$4,496,046	\$703,653
Sales Multiplier		1.3 %	1.3%
<hr/>			
Total Estimated Economic Impact		\$5,844,860	\$914,749*
Total		\$6,759,609	
TAX REVENUES			
State Sales	4.5%	\$ 290,880	\$ 6,904
County Sales	2.5%	\$ 116,601	\$ 3,835
Lodging Tax	5.0%	\$ 45,417	(6.0%) \$ 45,681
<hr/>			
Total Tax Revenues		\$ 452,898	\$ 56,420
Total		\$ 509,318	

Demographic Analysis

GENDER:

Gender Table:

Table 1 %

Male	65.0
Female	35.0

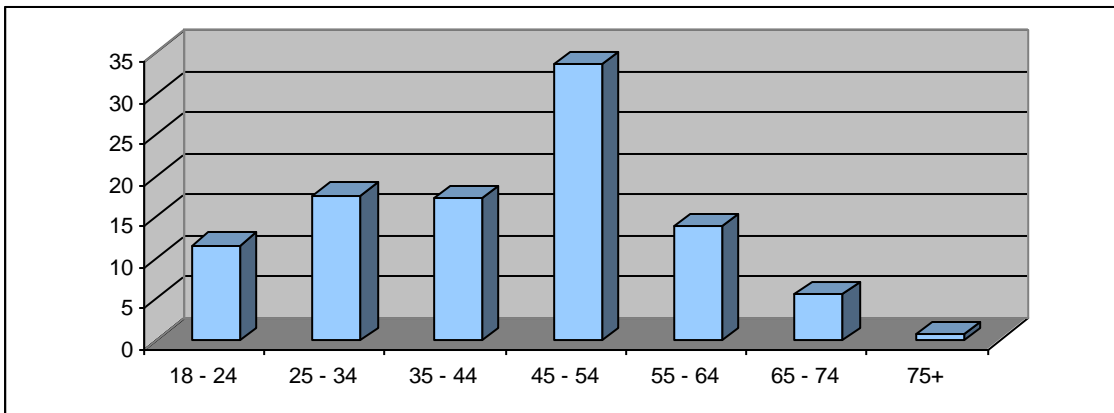
AGE:

Age Table:

Table 2 %

18 - 24	11.5
25 - 34	17.6
35 - 44	17.3
45 - 54	33.6
55 - 64	13.9
65 - 74	5.5
75+	0.6
Total	100.0

Age of Attendees Bar Graph:



INCOME:

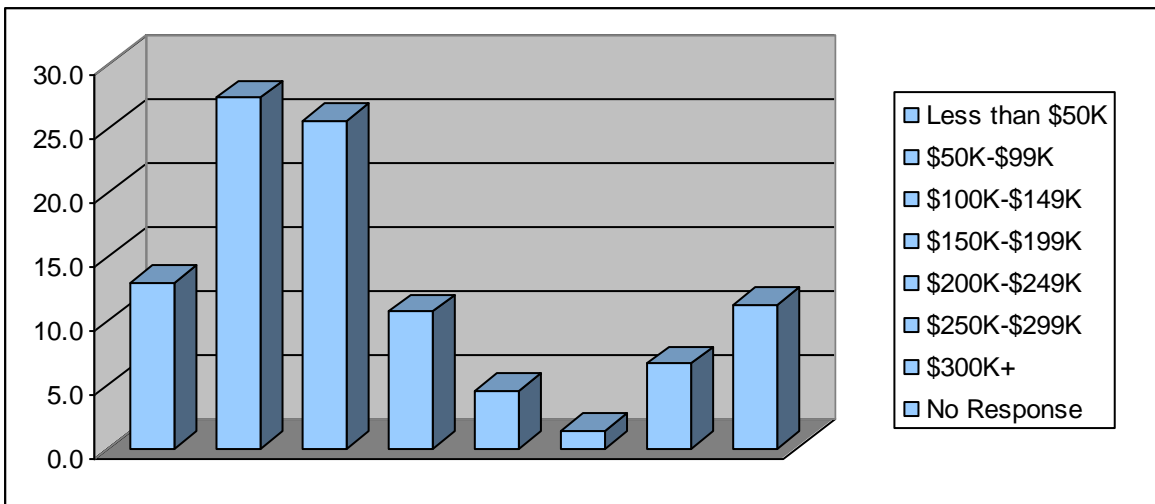
The analysis revealed an evenly distributed income, with a skew to mid-to-high income levels. Approximately 60% of attendees had household earnings of over \$100,000 annually. Due to the sensitive nature of Income, attendees were able to select “No Response” if they did not want to answer the question.

Income Table:

Table 3 %

Less than \$50K	12.9
\$50K - \$99K	27.3
\$100K - \$149K	25.5
\$150K - \$199K	10.6
\$200K - \$249K	4.5
\$250K - \$299K	1.4
\$300K+	6.6
No Response	11.2

Income Bar Graph:



Market Research Analysis

This section will further segment the various populations that attended the game. This section examines:

- Residency Status (where attendees live)
- Relationship and Affiliation to Carolina
- Number of Games Attended
- Lodging Status (did they stay in a hotel?)
- Satisfaction Levels
 - Concessions
 - Parking
 - Promotions
 - Stadium Staff
 - Videoboard
 - Game Atmosphere

RESIDENCY STATUS:

State of Residency:

State Percentage (%)

Table 4

<u>State</u>	<u>Percentage (%)</u>
North Carolina	72.8%
Georgia	1.1%
Massachusetts	9.2%
South Carolina	4.0%
Tennessee	0.9%
Virginia	2.9%
Other	9.2%

Of All Attendees at the Game, % were from the following areas:

Area Percentage (%)

Table 5

<u>Area</u>	<u>Percentage (%)</u>
Triangle	32.1
Triad Area	12.0
Charlotte Area	8.0
Wilmington Area	6.9
Fayetteville Area	5.7
Eastern NC/Outer Banks	4.9
Western Mountains	3.2
Total	72.8%

Of the 72.8% of North Carolina residents:

Area Percentage (%)

Table 6

<u>Area</u>	<u>Percentage (%)</u>
Triangle	44.1
Triad Area	16.5
Charlotte Area	11.0
Wilmington Area	9.4
Fayetteville Area	7.9
Eastern NC/Outer Banks	6.7
Western Mountains	4.3
Total	100%

AFFILIATION to UNC:

Listed below are the Attendees' Affiliations to UNC. Listed in Table 7 is the total percentage of each affiliation at the game. The total does not add to 100% because there is an overlap of each category. For example, an Alumni may also be a Ram's Club Member. Table 7 demonstrates there were a total of 36.1% Season-Ticket Holders at the game, regardless of other affiliations. Listed in Table 8 are affiliations combined with other affiliations. For example, "Alumni (Only)" is at 16.3%, because that group was neither Season-Ticket Holders, Ram's Club Members, Corporate Sponsors, etc., and had no other affiliation to Carolina besides being alumni.

A total of 9.1% of all attendees came from Massachusetts to the game.

Affiliation to UNC

Percentage (%)

Table 7

No Affiliation/Fan	32.4
Alumni	36.7
Ram's Club Member	33.3
Season-Ticket Holders	36.1

Affiliation to UNC

Percentage (%)

Table 8

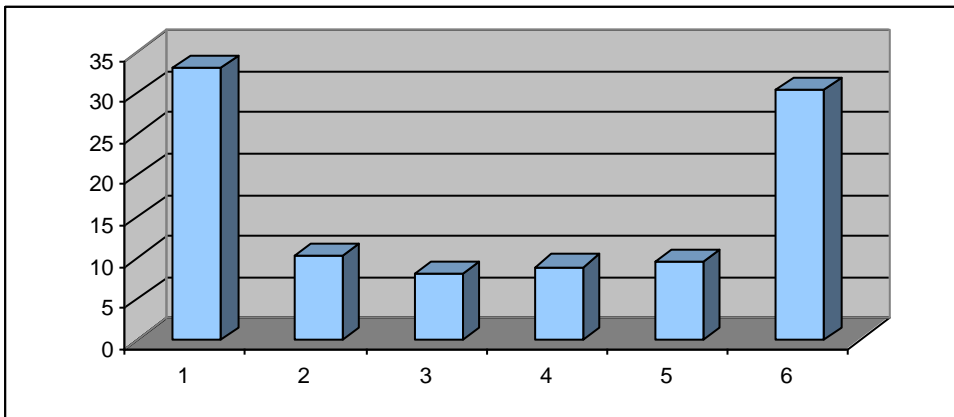
No Affiliation/General Fan	32.4
Alumni (Only)	16.3
Alum/STH/Ram	15.2
Season-Ticket Holder	10.9
STH/Ram	8.0
Student	7.4
Alum/STH	2.0
Faculty/Staff	2.0
Alum/Ram	1.7
Ram's Club Member (Only)	0.9
Corporate Sponsor	0.3
Other	3.0
Total	100.0

NUMBER OF GAMES ATTENDED:

Of all Attendees:

Table 9

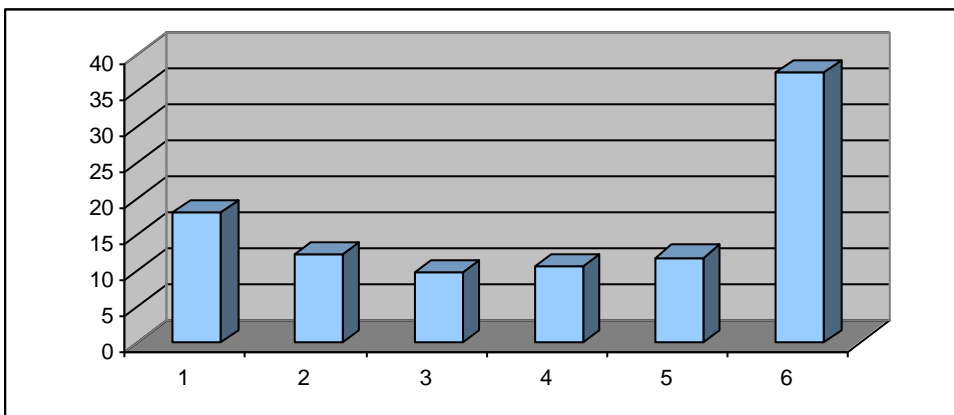
	%
1	33.0
2	10.3
3	8.0
4	8.9
5	9.5
6	30.4



Of North Carolina Attendees:

Table 10

	%
1	18.1
2	12.2
3	9.8
4	10.6
5	11.8
6	37.4



LODGING:

The average group size was 3.3 people that attended the event. A total of 24.6% of all attendees stayed the night in a hotel, averaging 1.91 nights, and spending an average of \$125 per person.

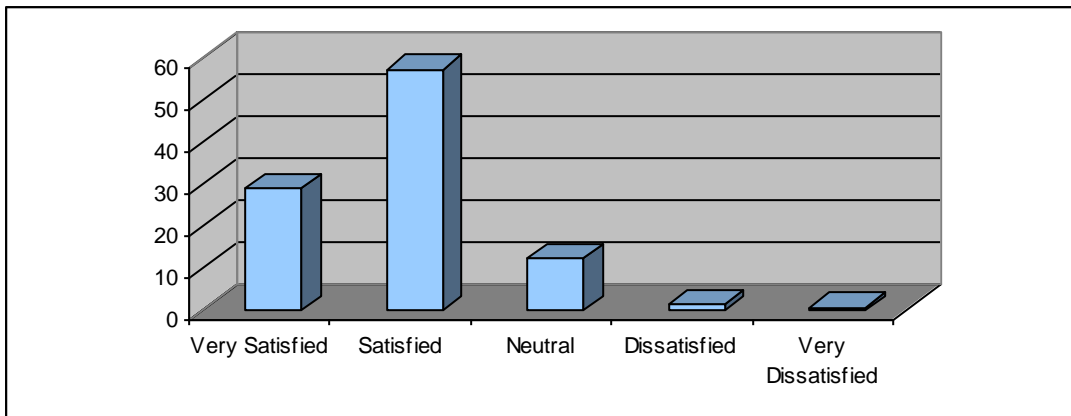
<u>Hotel</u>	<u>Percentage (%)</u>
Courtyard by Marriott	14.9
Carolina Inn	11.5
Hampton Inn (off highway 15-501 in Chapel Hill)	6.9
Comfort Inn - Durham	6.9
Sheraton	5.7
Holiday Inn Express - Chapel Hill (near I-40)	5.7
Best Western University Inn	4.6
Hilton - Raleigh Durham Airport at RTP	4.6
Marriott - RTP	4.6
Red Roof Inn	4.6
The Siena	4.6
Days Inn	2.3
Hampton Inn - Durham	1.1
La Quinta Inn - Durham	1.1
Other	20.7
Total	100

SATISFACTION LEVELS:

Concessions:

Table 12

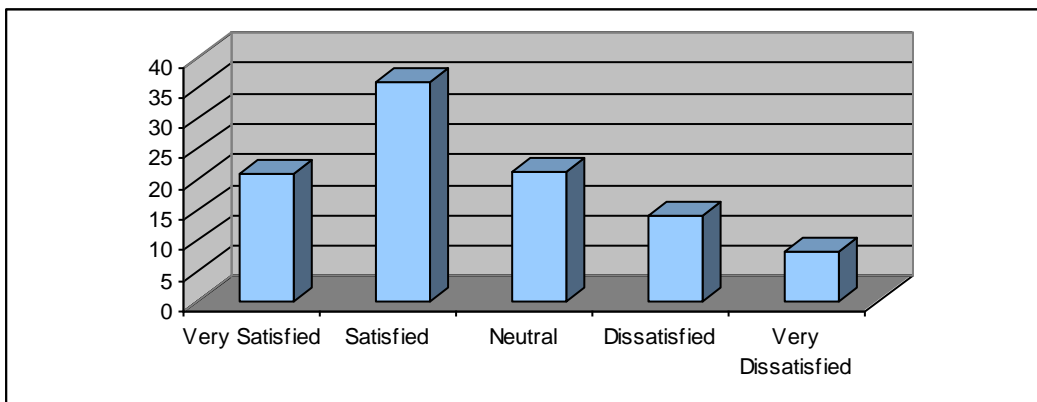
	%
Very Satisfied	28.7
Satisfied	57.0
Neutral	12.3
Dissatisfied	1.4
Very Dissatisfied	0.6
Total	100.0



Parking:

Table 13

	%
Very Satisfied	20.9
Satisfied	35.8
Neutral	21.2
Dissatisfied	14.0
Very Dissatisfied	8.0
Total	100.0

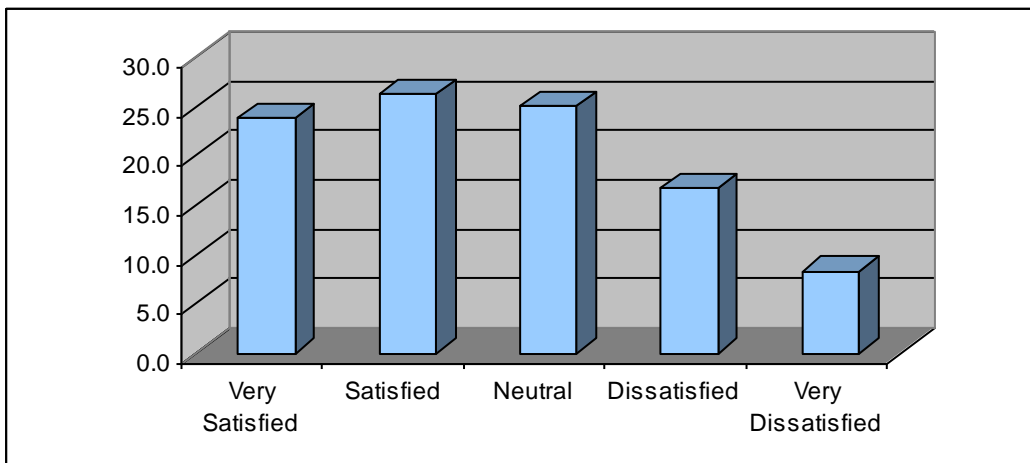


Parking by Affiliation:

Ram's Club Members & Season-Ticket Holders:

Table 14 %

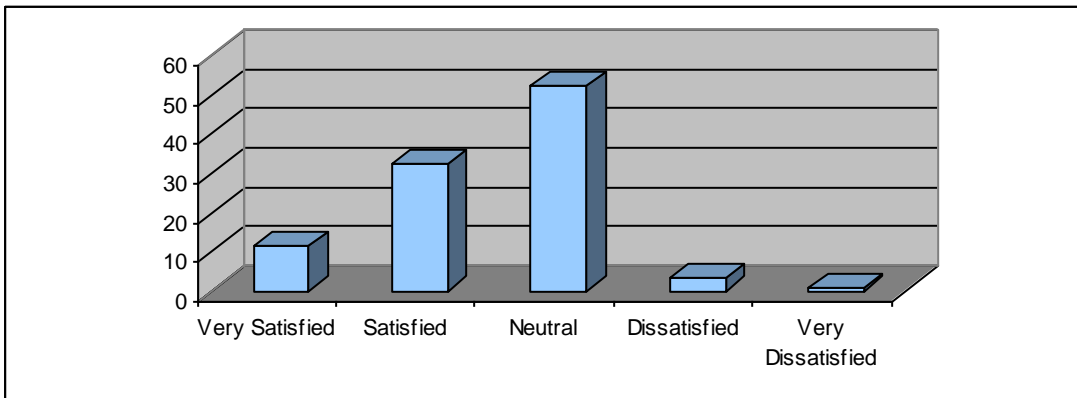
Very Satisfied	23.9
Satisfied	26.6
Neutral	24.9
Dissatisfied	16.7
Very Dissatisfied	7.9
Total	100.0



Promotions:

Table 15 %

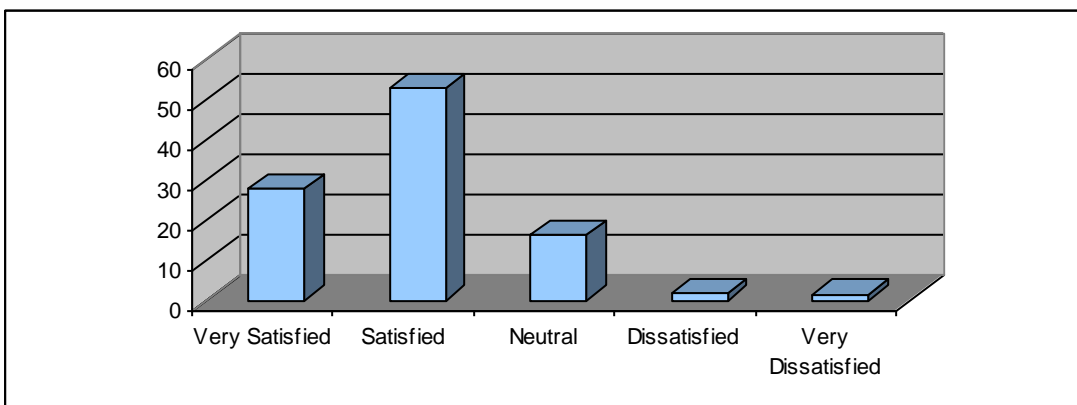
Very Satisfied	11.5
Satisfied	32.4
Neutral	52.1
Dissatisfied	3.2
Very Dissatisfied	0.9
Total	100.0



Stadium Staff:

Table 16 %

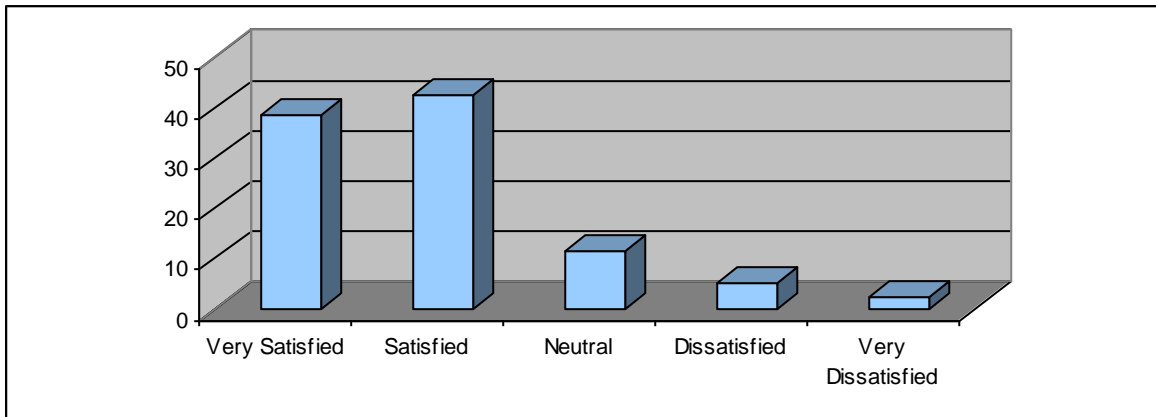
Very Satisfied	27.8
Satisfied	52.7
Neutral	16.3
Dissatisfied	1.7
Very Dissatisfied	1.4
Total	100.0



Video Board:

Table 17 %

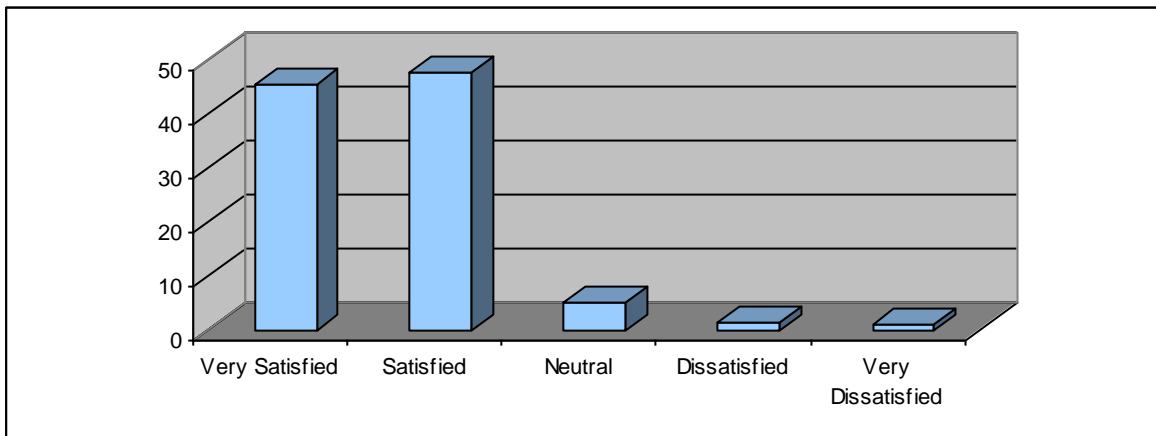
Very Satisfied	38.4
Satisfied	42.7
Neutral	11.5
Dissatisfied	5.2
Very Dissatisfied	2.3
Total	100.0



Overall Game Atmosphere:

Table 18 %

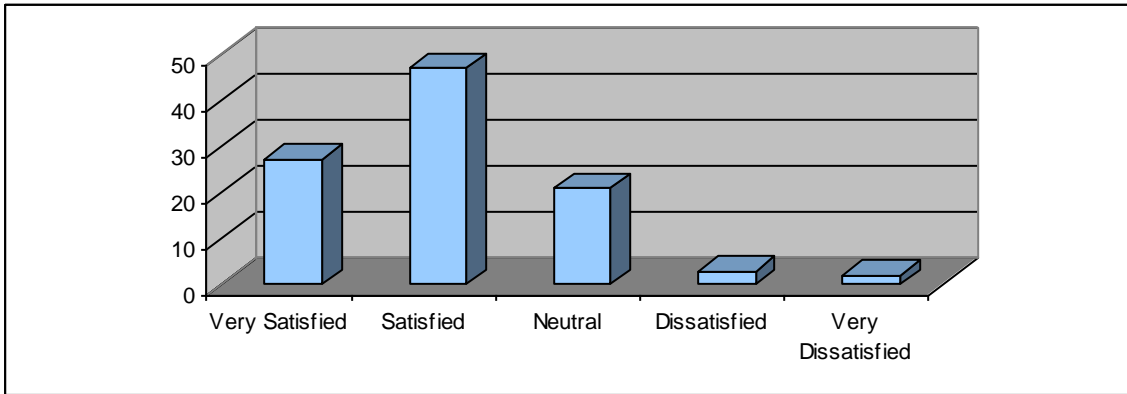
Very Satisfied	45.3
Satisfied	47.6
Neutral	4.9
Dissatisfied	1.4
Very Dissatisfied	0.9
Total	100.0



Tar Heel Town:

Table 19

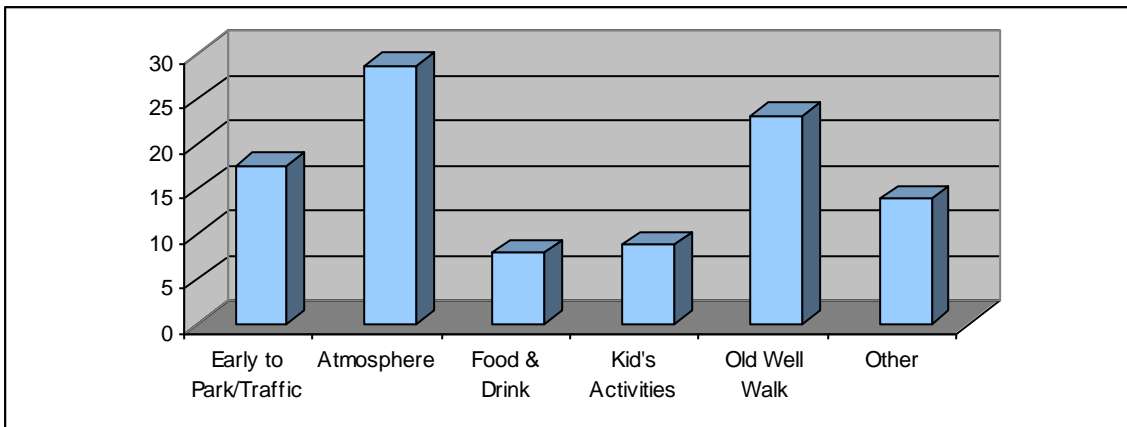
	%
Very Satisfied	27.2
Satisfied	47.0
Neutral	20.9
Dissatisfied	2.9
Very Dissatisfied	2.0
Total	100.0



Reason Attended Tar Heel Town:

Table 20

Early to Park/Traffic	17.6
Atmosphere	28.7
Food & Drink	7.9
Kid's Activities	8.8
Old Well Walk	23.1
Other	13.9
Total	100.0



Respondents Comments:

Respondents were asked to make any comments concerning Carolina Athletics, positive or negative. Below is a summary of the major comments.

- Visiting teams would like information sent concerning Tar Heel Town. They had a great time and would have like to have known it existed.
- Respondents asked if toilets could be placed at or near the parking garages.
- Respondents would like healthier food options at Kenan.
- A total of fifteen (15) respondents from the Boston area stated they had a great time at the game and at the various events and dining around Chapel Hill. They believed the people of Chapel Hill were marvelous hosts. One (1) respondent stated he did not like the event, or the people.
- A total of eight (8) respondents complained about tailgating options.
- A total of twelve (12) people complained about the parking, but four (4) respondents stated they understood about parking and thought Carolina was doing a good job with parking.
- Respondents stated they like the stadium redecoration
- Five respondents are upset at the start times of games, but believed it is up to Carolina to set the times.
- A few respondents would like to have the Smith Center open on football game days for visitors.
- Respondents would like more updated scores on the videoboard.
- Respondents would like monitors to be placed in areas where the Jumbotron cannot be viewed.

Conclusion:

The UNC/BC game economic impact equaled approximately \$6.7 million for the local Chapel Hill and Durham economies, and approximately \$509,000 in tax revenue. Important findings are listed below.

- The average age of attendees was a little higher (45 – 54) than the average collegiate football attendee across the country (mid 30's)
- The average income of attendees is a higher than the average football attendee across the country
- 21.2% of attendees came from other states, with 9.2% from Massachusetts. 32.1% are from the Triangle area.
- A total of 32.4% of attendees had no affiliation to UNC.
- 33% of attendees came to one game, while 30.4% came to all six.
- The Courtyard by Marriott and Carolina Inn had the highest number of attendees stay overnight, totaling 26.4%.
- An overwhelming majority of attendees were delighted with Concessions, Promotions, Stadium Staff, the Videoboard, and the Overall Game Atmosphere.
- 26% of attendees were dissatisfied with Parking, while 24.6% of Ram's Club and Season-Ticket Holders were dissatisfied with Parking.