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Perceptions of Worcester

*A Study of the
Business—College Student Relationship*

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ABSTRACT

This project begins an investigation into the relationship between Worcester's college students, the city, and its businesses and organizations. By reviewing literature and conducting interviews, we searched for potential ways to better connect the students with Worcester's offerings. We concluded that new forms of communication technology (Internet and e-mail) might be an effective way to build a stronger relationship between the college students and their surrounding city. A proposed paper survey was written for future research of this subject.

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1. Introduction

The city of Worcester is host to a consortium of colleges and universities. Enrolled students of these institutions of higher learning comprise a substantial portion of the city's population. Also within Worcester's borders are a number of diverse businesses and organizations offering a myriad of services, products and opportunities. With such a combination, our project group wondered why many college students could not find what they wanted in the city. On the other side of the issue our group found that many business groups in Worcester could not reach and retain the college students as consumers, patrons, or members. Determining why this was happening and what could be done became the primary goal of our project.

At present, businesses and college students are not building the most mutually beneficial relationship. Little research has been done in order to understand the past or current relationship between college students and Worcester's businesses and organizations.

The intent of our project was to discover college students' and business owners' views on related points in order to help solve this compound problem. Determining how students residing in Worcester currently view various businesses' products, services, and marketing techniques would allow for better mutual accommodations in the future. Knowing what businesses were currently doing to target college students helped to investigate what improvements could be made. Our project interviewed interested businesses and organizations in the city and conduct focus groups with students from Worcester's four-year universities. A proposed paper survey was also completed as part of this project, but due to time constraints, we were not able to conduct the paper survey. The findings of our project can be used as a basis for the continuation

of the study by a subsequent project team. For this reason, the paper survey along with recommendations and suggestions for a future team are included in our project.

Our group decided to first meet with businesses and organizations to gather an understanding of their side of the project's issue. We interviewed owners, managers and sales representatives of different businesses and organizations. The interviews were useful in gathering the businesses' concerns, questions, and information regarding the project's progress and results. Hearing about each business's current marketing techniques and concerns about the college market introduced new aspects to our project.

Businesses wanted and needed to know a lot about the college students. Most of the interviewed business representatives wanted to know how to reach the students, and how and when students spend their time and money. Some of the businesses were very interested in finding out which media would be best to inform and contact students about their products or offers. Newspaper advertising, radio and television commercials, paper mailings and postering, as well as e-mail messages and webpages were all listed as possible methods for reaching students, but it was unclear which, if any, would be successful. This was important in determining how or if technology could play a role in establishing the relationship between students and businesses.

Interviewing students seemed the most logical way to find answers to the businesses' questions. To begin the student aspect of our study, focus groups were conducted at Worcester colleges to give us deeper detail and information about the students. Focus groups of students were held at Worcester Polytechnic Institute, Clark University, Assumption College, Worcester State College, and the College of the Holy Cross. These video-recorded informal discussion sessions generated a more verbal and visual chronicle of the students' attitudes on project-related

issues. The focus group interviews were an effective way to let students air their opinions concerning the city and its offerings, and obtain valuable information for the businesses. Asking students about their social activities and discretionary expenditures was the first part in solving the college marketing problem. Questions regarding the best way to communicate with the students were asked to help solve the second half of the problem. It was of interest to determine whether new forms of communication technology could help solve the problem. Both of these elements needed to be addressed, examined, and reviewed, for the currently problematic distance between the two groups to be shortened.

It is essential for businesses to establish initial contact with students and maintain this connection for a mutually advantageous relationship. Through our team's project initiation and investigation, completed research, and suggestions for the continuation of the entire study, this can be accomplished.

Additional surveying and research techniques will need to be implemented during a future groups' continued investigation. Face-to-face surveying of students on the five different campuses will enable an accurate written account of their opinions and statements to be gathered. A proposed paper survey has been prepared for subsequent study of this subject. This paper survey was the result of information gained from the focus group interviews conducted during our study. Combining focus groups from our group with future face-to-face interviews by a subsequent team will allow for more conclusive considerations and investigations of different perspectives of the existing marketing and communication barriers.

In order to begin our project we needed to research many different topic areas and uncover many vital facts. The knowledge we gained prior to embarking on our own study is summarized by subject. To begin our study of Worcester, we researched its history, culture,

current attractions and offerings—including the five institutions of higher education that constituted the focus of our study.

We explored literature on various marketing techniques specifically designed for the college population. Previous studies conducted within the city concerning college student spending and transportation proved to be indispensable and were also examined.

The procedure, methods and details of our project's course are discussed, followed by summaries of each business interview and focus group. Lastly, the conclusions of our study and suggestions for continuation are discussed.

2. Literature Review

In order to understand and research the issues our project has faced, five topics have been investigated. Since our study involved Worcester, we needed a basic understanding of the city. Knowledge of its history and current status—its businesses, organizations and other facilities—was fundamental to our study. Secondly, an understanding of college students' academic and social activities was necessary. Because our research concerned college students, institutions of higher education and college life were researched. The next aspect of our study was researching marketing techniques for the targeted student population. Advertising methods that sought to reach college students were also examined. Both successful and failed techniques were studied to provide us with an idea of how marketing techniques work.

Knowledge of the college student market aided us in the design of our business interviews and proposed student survey. Another point of investigation for our project was through previous studies done on this topic. Two studies within Worcester were conducted, and although they did not have the same focus as ours, they possessed valuable information that was utilized in our project. The last area of interest to this project was research methods. Since we conducted business and focus group interviews, and wrote a paper survey, it was important to understand and comply with the proper methods. What follows is a summary of our findings in each of these areas.

2.1 Worcester

2.1.1 Historical Introduction

The area of land known as Quinsigamond, which would later become the city of Worcester, was first settled in 1657 (Erskine, 1981). In 1848 when Worcester officially became

a city, it had grown to the point where it had a town square, a mayor and about 15,000 residents (Southwick, 1998). Worcester continued to grow until the Great Depression. At that point the city entered into a decline from which it is still trying to recover.

2.1.2 Attractions in Worcester ***Shopping***

From a marketing perspective Worcester has several areas of interest. These areas include shopping, recreation, culture and colleges. Each section has various attributes which all contribute to the offerings of the city.

Worcester has a number of attractions in the area of shopping. These attractions are many and varied, but it is estimated that there are approximately eleven athletics/sports shops, nine bookstores, thirty-one clothing/shoe stores, and five antique or collectables stores. Worcester also has thirteen grocery or food selling stores, twelve home furnishing stores, six gift stores, three jewelers, nine music stores, and a number of other shops that sell various miscellaneous items (Abramoff, Abramoff, & Lindbland, 1995). Understanding, at which stores the students shop, why they shop there, and what new stores they would like to see, can be of great use to businesses in the area

Worcester has two malls that support the city's economy. The first is the Worcester Common Fashion Outlets. Covering one million square feet of land, it was the nation's first enclosed cosmopolitan outlet mall (Abramoff et al., 1995). The other mall in Worcester is the Greendale Mall. Anchor stores such as Best Buy[®], Marshalls[®], and TJMaxx[®], along with its location at the junction of two highways make the mall a frequented destination.

Recreation

Worcester has a number of recreational opportunities. Learning which of these opportunities are utilized by college students can allow city planners and other recreational businesses to help these places cater to the college market. Some of these include an animal farm, three places that offer flying tours, one bicycling center, four pool halls, one boating center, one public bowling alley, one golf course, one skating rink, eight public parks, three major bodies of water, seven centers for general recreation, and two public pools (Abramoff et al., 1995). Worcester also has an AHL team, the Worcester IceCats. Worcester is also known for the Worcester Centrum Centre. Constructed in 1982 at a cost of thirty-two million dollars, it was built to accommodate a variety of uses. It has successfully hosted a number of major headliners and conventions since its completion (Abramoff et al., 1995). Another notable area is Elm Street Park. It is recognized as the first public park in the country (Abramoff et al., 1995). It provides people with a place to relax and allows free use of various recreational facilities.

Culture

Worcester has a number of various cultural centers. Knowing which of these cultural centers interest college students can help potential surveyors understand why college students are attracted to some places rather than others. This could allow these businesses to better market themselves to the college students. Worcester's cultural attractions include Mechanics Hall, the Worcester Art Museum, and Higgins Armory. Mechanics Hall was built in 1857 and underwent a five million-dollar renovation during the 1970s. This established Mechanics Hall stature of being known for excellent acoustics (Southwick, 1998).

The Worcester Art Museum is the second largest museum in New England and has works spanning five thousand years. It houses a permanent collection of over thirty thousand pieces and offers classes for people of all ages (Abramoff et al., 1995).

With the largest display of arms and armor in the western hemisphere, the Higgins Armory, founded in 1931 by John Higgins, is another of Worcester's museums (Abramoff et al., 1995). It provides various educational programming and is easy for the public to access by its location directly off of Interstate 190.

Being aware of these attractions allowed us to examine if and how frequently the students took advantage of the cultural opportunities in the city of Worcester. When conducting our research it was important to determine whether the cultural opportunities in Worcester affected students perceptions of the city.

Analyzing these factors would assist in understanding how college students view the city, and what areas they believe could use improvement. Further analysis may give insight as to why some students remain in Worcester after college while others do not. Investigations could be made in order to determine how more of these students might be encouraged to continue to work and live in Worcester after college.

2.1.3 Worcester Colleges

The eight colleges within Worcester's city limits provide a major area of interest. Comprising approximately 27,000 of the city's residents, the college students of Worcester provide perhaps the greatest avenue of economic growth and recovery. The eight colleges are Assumption College (founded 1904), Becker College (1887), Clark University (1887), College of the Holy Cross (1843), Quinsigamond Community College (1963), University of Massachusetts Medical Center (1970), Worcester Polytechnic Institute (1865), and Worcester

State College (1874) (Abramoff et al., 1995). Each institution chose Worcester as the site for their school for various reasons. What follows is a history of the five colleges that constitute the focus of our study.

Assumption College

Bishop Beavan, of the diocese of Springfield, Massachusetts, extended an invitation to some Assumptionists to transfer to his diocese and to found an educational institution. The Assumptionists were founded in France in 1850 by Venerable Emmanuel d'Alzon. In France, the 19th century was a time of revolution that prompted Emmanuel d'Alzon to fight for the "Rights of God." He felt that God had a right not to be excluded from society, and he saw that this was happening in France at the time. The Assumptionists traveled through France, and eventually all over the world, informing people of their religious beliefs. They even found their way to Massachusetts where they were invited to found an educational institution. They accepted Bishop Beaven's invitation, but their attempt to open an agricultural school failed. After this attempt, the Assumptionists were able to obtain land in the Greendale section of Worcester, which was chosen to be the site of the new school. The first four students of Assumption College enrolled in 1904. Enrollment grew steadily until a devastating tornado in 1953. This tornado caused millions of dollars of damage to the school. At this time, the Assumptionists decided to turn that location into a prep school and move Assumption College to its current 145-acre Salisbury St. location (Marion, 1995).

Clark University

Jonas Gilman Clark was born in Worcester County in 1815. Through hard work he acquired a fortune. At 21 he started a business manufacturing chairs and carriages. Through the next few decades of his life, his successful business endeavors were extensive. He pursued the

tinware business, the sale of hardware and building materials, and the shipment of staple goods and other supplies to miners on the Pacific coast as a result of the Gold Rush. After he acquired his fortune, he decided to settle near the place of his youth; he bought a home in the city of Worcester.

For about 20 years Clark dreamed of founding a university. He obtained information concerning the organization of universities, colleges, and libraries both in the United States and in Europe. He decided to establish a university in the city of Worcester because it was now his home city and was centrally located among what he considered to be the best colleges of the east. Clark was a man who “believed that the culture of its citizens would create a public opinion in support of the maintenance of educational standards at the highest, and that its wealth would provide the continuous increase in funds required by a developing institution” (Atwood, p.3). Clark formed a board of trustees who elected the university’s first president, President Hall. Hall envisioned a purely graduate institution. Clark was opposed to this, but he finally agreed. An all-graduate institution was opened in the late 1800’s, and the undergraduate college opened in 1902 after Clark’s death (Atwood, 1937).

College of the Holy Cross

In 1836 Father James Fitton, who was a pioneer catholic priest, founded an academy to provide Catholic youth with a secondary education. This academy, Mount Saint James Seminary, was located on the Hill of Pleasant Springs in Worcester. Eleven years prior to this, Benedict Fenwick became the second Bishop of Boston. Because of his experience as an educator he developed a concern for catholic education. He saw a need for more priests, he possessed a desire to improve catholic immigrants, and he had a wish for Catholic youth to be educated in a hostile-free environment. Father Fitton’s desire to “promote the interest of religion

and piety and the cause of education” caused him to give Bishop Fenwick control of the school in 1842 (Meagher & Grattan, p. 29-30). Mount St. James Seminary was then converted to the College of the Holy Cross and opened in 1843.

Worcester Polytechnic Institute

At the age of 73, John Boynton took a trip from Athol, Massachusetts to the city of Worcester to talk with his cousin David Whitcomb. Boynton had become a rich man through his time spent as a tinware manufacturer. Now that he was older and had no close family with whom he could leave his money, he decided to donate it to an educational institution. He wanted the institution to provide educational opportunities that he and his cousin did not have when they were young. Although Boynton originally wanted the institution to be located in Mason or Templeton, Massachusetts, Whitcomb convinced him that Worcester was a better location because the wealth necessary to support the school was available in the city. Boynton named Whitcomb trustee of the funds whose donor would remain nameless until the institution was built.

Whitcomb immediately began consulting with Dr. Sweetser and then Governor Emory Washburn. These men began planning the school at once. Boynton now requested that the citizens of Worcester provide the funds to purchase land for the institution and to construct the necessary building. As a result a letter was sent to about 30 wealthy and prominent citizens informing them of the situation. Because of the terrific response, a meeting was scheduled to discuss the issue in more depth. Two people out of this group, Stephen Salisbury, II, Worcester’s most prominent businessman, and Ichabod Washburn, Worcester’s top industrialist, gave their support to the funding of this institution. The layout that had been devised for the institution was one that planned to educate people and prepare them for leadership positions in the worlds of

manufacturing and commerce. Stephen Salisbury, II donated land to the school, and Ichabod Washburn built a model manufacturing facility to provide students with practical experience that would complement their classroom studies. The school, founded in 1865, is now known as WPI (Taylor, 1937).

Worcester State College

In 1871 the board of education was required and authorized to establish a state normal school in Worcester. Sixty thousand dollars was appropriated to help with the building and furnishing costs, and in 1874 Worcester State College opened for enrollment.

Conclusion

Each one of these five colleges is located in Worcester for a different reason. The reasons are diverse and largely unrelated. All of these colleges are unique and attract diverse groups of students. Knowledge of the history of the colleges, which was presented above, was essential in order to understand the current conditions and attributes of each of the schools. Because of the diversity of these collegiate institutions, the students surveyed in our paper had different outlooks on the City of Worcester.

2.2 College Life

College is a time of great changes for many students. They are presented with an incredible number of choices, which are an important part of the life of a college student. To conduct a survey of college students, a basic understanding of what these choices are and how they affect the students being surveyed is necessary. These choices and opportunities are comprised of the following five categories: independence, social organizations, competition,

academic achievement, and intellectual pursuits (Strange, 1993). When taken together these categories provide a fairly accurate view of the typical college student.

A sense of independence is one of the first things that the average college student encounters. Many students are now of legal adult age and have moved away from their parents for the first time in their lives (The Carnegie Foundation for the Advancement of Teaching, 1990). This situation provides an emphasis on freedom - thinking for themselves and allowing the students to experience things on their own rather than following the example of others (Strange, 1993). Many leaving home for the first time are eager to exercise their newfound freedom. Social drinking and drug use fit with this desire (The Carnegie Foundation for the Advancement of Teaching, 1990). This freedom is a characteristic part of the college experience (Strange, 1993). This is an important fact to keep in mind when surveying college students and college freshman especially. Since the freshman will be the newest to the environment, they will also be the ones least experienced with handling this newfound freedom. A recent study done by the Carnegie Corporation for the Advancement of Teaching (1990), found that an average of 67 percent of college deans surveyed thought that drinking was a moderate to major problem on their campus. This demonstrates that it is possible to use this newfound freedom unwisely.

The various clubs and teams encountered in college settings are what make up the area of social organizations. In addition to the courses college students take, about half of them work, on average, twenty hours a week (The Carnegie Foundation for the Advancement of Teaching, 1990). Working and attending classes are not all that college students do with their time: students need time alone, and time and places to relax with friends (The Carnegie Foundation for the Advancement of Teaching, 1990). Time away from classes and work can often act to relieve stress. Social organizations can provide the students with an atmosphere in which to socialize in

their free time. Social organizations are often comprised of many students and may be useful contacts for those who are attempting to survey the college market.

The area of competition is defined as the way in which activities, both social and academic, are viewed competitively (Strange, 1993). Improving one's status among peers is one area of competition. This area of competition is more specifically called the social ladder. The social ladder is the invisible hierarchy among a set of peers. The higher one's place on the ladder that greater one's status and influence in the group. Earning high grades is also an area of competition. This competition may be personal, in the form of a student's own drive for grades, or there may be actual competition promoted by the professor to increase interest in the work.

The category of academic achievement is composed of classes, homework, and other grade oriented projects (Strange, 1993). The average student spends a good amount of their day either in classes or completing assignments. Outside of the pressures of competition for grades, merely having to do the work can be pressure enough. The difficulty of the work, time required to do the work, and the availability of help all present a number of challenges. These challenges need to be met by the average student on a daily basis if the student hopes to succeed at college, and the resulting pressure should be taken into consideration when surveying the college market.

Additionally, there is the category of intellectual pursuits: this is the emphasis on cultural, artistic, and other intellectual activities (Strange, 1993). This definition does not fully encompass the idea's meaning. Intellectual pursuits comprise the application of what is learned at school to one's social life, and as such is caught between the areas of academic achievement and social organizations. It is the ability to take what one has learned, see how it applies to the real world, and apply it to the world oneself.

In general, all of these aspects of college life are of interest to researchers trying to learn about the college market. With an understanding of the general needs of the average college student, businesses could potentially market to these students very successfully. The next section investigates marketing techniques aimed at college populations.

2.3 Marketing to College Students

Considering the college population as a valuable potential market is a relatively new idea. There are a few reasons why students have not been previously viewed as very viable clients. During the past twenty years college students did not constitute very high numbers and did not attract the interest of many businesses. Markedly small campus populations that plagued the last decade are attributed to the 'Baby Bust' generation. The 'Baby Bust,' refers to the years between 1965 and 1976, in which there were relatively few births. When this generation reached college-age most universities felt a significant drop in their enrollment due to the lowered number of possible students (Dunn, 1992).

Beginning in 1990 a new generation was brought to the doors of colleges and universities. The children of the infamous 'Baby-boomers' began generating increasingly larger college populations with much more money to spend than their predecessors (Walsh, 1993). Totalling more than 14 million in number with over \$90 billion dollars in spending power, college students comprise a large possible target market (Speer, 1998). Businesses and organizations are now facing a new marketing question of how to access this distinct and lucrative market (Dunn, 1992).

Since the group is still beginning to be viewed as a valid market, approaches to targeting college students have not received a lot of attention. This leads to the dilemma of determining a

successful starting point for any marketing plan. Marketers' first steps have been concluding how college students spend their money and which methods attract and retain students' attention.

Stuart Himmelfarb conducted an extensive survey of college students and has divided some of their spending into categories. Focusing on full-time four-year enrollees, Himmelfarb found that of \$30 billion spent, \$23 billion was for 'essential' purchases such as food, rent, car insurance, gas, tuition and books (Speer, 1998). The remaining \$7 billion was spent on 'nonessential' items and services—what Himmelfarb terms the “‘beer and pizza’ money” (Speer, 1998). Eric Weil, who publishes a newsletter to many businesses interested in the college-student market, has determined his own breakdown of student monthly spending. Weil estimates that students spend nearly a third (32%) of their money on food, and thirteen percent on automobile-related costs. Less than ten percent is spent on clothing, and telephone bills (Speer, 1998). Doris Walsh of American Demographics calculates that the average college student spends close to two hundred and fifty dollars a month in what she terms as, 'discretionary dollars' (Walsh, 1993).

Other student statistics can also help marketers understand more about the population and their spending trends. At four-year colleges and universities more than half of the students have automobiles. Two-thirds of students have credit cards and half own personal computers. Another two-thirds have telephone calling cards, and every fall one-third of all students is new to a campus. Out of ten students, eight regularly access the Internet and seven have cable with premium channels. In one week's time malls were visited by nearly half (47%) of college students and three-quarters ordered at a fast-food restaurant (Speer, 1998).

Once marketers know how students spend money, they need to determine how to reach them with reliable, successful media. Companies spend a combined \$100 billion each year in

on-campus advertising for students (Speer, 1998). Through constant experimentation and adaptation, marketing teams from various corporations and organizations have found ways to contact and maintain students as consumers. Janet Taylor explains how Sprint™ has found tabling to be advantageous. Sprint™ sends company representatives to sit in college bookstores or student unions, supplied with promotional information and incentives for passing students—this is referred to as tabling. Sprint also takes part in campus events throughout the entire school year in order to stay involved with their student customers (Marx, 1995).

Taylor explains that Sprint's™ success did not arise automatically. Not only did Sprints'™ representatives adapt their approaches and methods for college students, they learned how to address students in different regions. Taylor's teams found that students on the East Coast quickly wanted “just the facts,” whereas West Coast students preferred “to take time and chat” (Speer, 1998). Taking this into consideration, students in Worcester may not be willing to spare much time. Using this to our advantage while writing the paper survey may prove beneficial to our results. Sprints'™ telephone rival, AT&T™, uses another technique when marketing to college students. Robin Bruen, company director of student marketing, college segment for AT&T™, states that they have begun concentrating on non-tabling tactics and are focusing on new attractions for students. All student customers of AT&T™ receive a free annual membership in a student discount program, Student Advantage (Speer, 1998).

College marketer Ian Leopold uses reliable on-campus locations to publicize his product to students. He founded a discount guide for college students known as “Campus Concepts,” which is distributed to seventy campuses across the country. The guide includes maps, phone numbers and calendars for the individual campus, as well as advertisements from local and

national companies. Leopold distributes his guide at the campus bookstore where, within a week, forty percent of students will see it (Speer, 1998).

Another on-campus advertising location that is not often utilized by marketers is the campus gymnasium or fitness center. More than three-quarters of college students go to their sports center to workout or compete on an average of twice a week (Speer, 1998).

Lastly, there is one medium for marketing to college students that has generated a lot of attention and interest among marketing teams. The Internet has proven to be the most experimental means for companies to broadcast information to students. Although students have “more unrestricted access to computers than any other population segment,” there is no available evidence on whether or not Internet advertising is leading to student purchases (Speer, 1998). Despite the uncertainty of the web drawing definite customers, many companies invest heavily, sponsoring chat rooms, game shows and entertainment websites (Speer, 1998).

Reaching college students during their campus years is important for business relationships in later times. Some companies hope student customers will remain loyal throughout their life. Other businesses realize that long-term commitment may be too much to ask from anyone, not just college students (Speer, 1998).

Ultimately, with comprehension and a willingness to experiment and modify, many businesses have shown that a successful business-college student relationship is possible to attain. Within the city of Worcester it seems unclear why businesses have not effectively connected with the students. Some research has been done to investigate the situation by two separate organizations in the city. Both the Colleges of Worcester Consortium and Worcester Regional Transit Authority have conducted surveys surrounding the potential of the student

market. Survey results of the COWC and WRTA™ studies explored the students' spending and transportation habits, respectively.

2.4 Previous Studies of Worcester's College Students

2.4.1 Economic Impact

In 1996 the Colleges of Worcester Consortium conducted a survey of the economic impact higher education has on the city. Part of the study focused on college students and their personal expenditures. Research covered undergraduate and graduate students, living either on or off of campus, attending the Consortium's ten institutions.

The 2500 surveyed students were asked various questions about their spending. Expenditures were divided into categories such as food, clothing, entertainment and transportation. Questions were also asked about money that may be spent with students' parents or other visitors. Students' personal spending in the Worcester area amounted to \$111 million. Visitors to the college students spend an additional \$22 million within the city on restaurants, travel, hotels and additional items (Ghosh, 1996).

Furthermore, spending by potential students of Worcester's colleges was also included in determining the college's effects on the city's economy. Visitors drawn to university functions such as conferences, open houses and athletic events add nearly \$8 million in local spending (Ghosh, 1996).

In total, almost \$141 million dollars in each year are generated from expenditures directly associated with students of the city (Ghosh, 1996). In addition to fueling the overall economy of the city, an additional survey studied the students' economic impact on public transportation.

2.4.2 Transportation

The Worcester Regional Transport Authority™ (WRTA™) in cooperation with the Consortium of Worcester Colleges (COWC) hired CJI Research Corporation to lead a survey on college students' transportation. A total of 1,236 undergraduate and graduate Worcester college students completed CJI's questionnaire in the spring of 1999 (CJI, 1999).

The WRTA™ and COWC survey implemented some techniques that were used in our project. Proportionality ratios for colleges and surveying locations used in the CJI led survey are the same as ones that will be used in the continuation of our study.

In order to determine an appropriate sample size on each campus, individual college populations were compared to total population, and proportions were calculated. Colleges with larger student populations would therefore have a larger number of sampled students in the total sample population.

Because locations chosen by the CJI researchers proved successful and shared characteristics that we desired, we have recommended these to our successors as potential face-to-face surveying sites. These different sites on each campus were selected because they provided the best cross-section of passing students. By surveying at these chosen areas the CJI researchers were able to contact both residential and commuting students as well as students of all years and majors. The 'Wedge' at Worcester Polytechnic Institute and the Hogan Center at the College of the Holy Cross are two of the surveying locations that may be used in the continuation of our project that were also used in CJI's study (CJI, 1999).

Additionally, CJI's statistical and informational results were vitally important to our study of the students. Although their study focused mainly on college students' transportation needs, it was very valuable in studying the students and their marketing potential. It has been

learned through our focus groups, as well as through other studies, that college students' level of mobility greatly affects their activities. Off-campus activities that require some sort of transportation are the subject of greatest interest in CJI's survey, and became important in our own reporting.

Before CJI could start to make any conclusions about Worcester's students however, they first examined possible population differences between the campuses in the city. By doing so they were able to categorize schools into separate classes for separate variables.

Of primary concern to their transportation survey was percentages of students commuting, living on-campus and off-campus. These numbers were tallied for individual colleges as well as for total college population. From these statistics it was established which schools were mainly commuting campuses, primarily on-campus residential, or a balanced campus of both on and off-campus residing students.

Quinsigamond Community College and Worcester State College were identified with mostly commuting student populations. A balance of commuters and residents on or near campus was seen at Assumption College. Schools with principally campus-residing students were Clark University, Worcester Polytechnic Institute and the College of the Holy Cross. These statistics were useful when surveying students about transportation on the various campuses. Students commuting into Worcester may have very different opinions about the city than the students living here. We did not have the opportunity to uncover whether or not this is true within the course of our project since the paper survey has not yet been conducted. Only after the completion and analysis of the paper survey by a future group will a valid conclusion be possible.

Questions asked in the CJI survey addressed vehicle access, usage frequency of the free college shuttle service, and city public bus patronage by students. Similar questions were posed in our focus group surveys, and are included as part of our proposed paper survey. Responses differed depending on individual campuses for much of the CJI survey. For example, the schools with more commuters had larger numbers of students with direct access to a car; whereas the mainly residential campuses had fewer students with car access. One response that did not differ amongst campuses was overall usage of the WRTA™ services. Students' use of WRTA™ transit was found to be consistently low at all of the college campuses. A large majority (81%) of students on all campuses had not used the WRTA™ free campus shuttle during a month's time. The number of students accessing the WRTA™ public buses was nearly as low (CJI, 1999). Both our focus groups and proposed paper survey tackle questions regarding the reasons students do not use the WRTA™ shuttles. The CJI survey did not ask students whether or not they use taxis, or if so, how often. It is possible that this is a more feasible transportation option for students, which may be further investigated through the implementation and results of our teams suggested paper survey.

Another area of particular interest to our project examined in CJI's paper survey was destinations of students. Classification of students and their destinations helped to clarify exactly where students were going. This information was individualized for each campus and totaled for the college population as a whole. Specific destinations that were addressed in the questionnaire included the Worcester Common Fashion Outlets, the Worcester Centrum Centre© events, Showcase North movie cinema, Greendale Mall and other college campuses. Investigations were also made concerning the mode of transportation used in accessing the aforementioned events and places. Included in our survey questions are similar inquiries about students'

destinations; although information found through our focus groups enabled us to compile a more thorough and campus-specific list of possible visited locations.

CJI found the most frequently visited location on the list to be the Worcester Common Outlet Mall, with 42 percent of students visiting at least once a month. Within a months time thirty-eight percent of students traveled to Showcase North© at least once. Greendale Mall was visited by thirty-four percent of college students within the previous month. Other destinations that were not as frequented included other campuses, restaurants, grocery stores and the Amtrak® train station (CJI, 1999). Our focus groups and proposed paper survey of students take a closer look at each college campus, and include additional places of interest. Whereas the CJI survey covered only a few widely known city destinations, our study also contained smaller, personal businesses and organizations located near each distinctive campus.

The last point of significance from CJI's findings deals with the marketing aspect of our study. In an attempt to better target the students as a marketable population the WRTA™ asked questions regarding possible special student offers and discounts (CJI, 1999). Additionally, we have asked students about their present knowledge of citywide discounts, and whether or not student discounts affect students' spending.

In particular, the WRTA™ wished to learn if bus line changes or reduced rates would increase student usage of the shuttle service. Based on answers from students surveyed, the WRTA™ concluded that it might be beneficial to increase the frequency of shuttle runs, extend the hours of operation, and offer a reduced semester rate to college students (CJI, 1999). Responses to our questions regarding students' ideas for possible changes to the WRTA™ services closely reflected those found by CJI.

The information found through the WRTA™ and COWC survey was extremely pertinent to our project and acted as a valuable basis for direction. Knowing previous information about transportation modes and destinations proved to be extremely relevant when researching social activities, and business patronage of college students. How far students can, or must travel affects where they go and what they do. CJI's research gave us an initial idea of transportation styles at the colleges of Worcester which then enabled us to form specific questions for the students. We could not, however rely solely on the research of others. In order to get a more current view of the college population and how to market to them, we needed to analyze various research methods and conduct research of our own.

2.5 Research Methods

There are three main methods of surveying people. These are mail surveys, telephone surveys and face-to-face surveys. In the past, the most popular method of surveying has been face-to-face interviewing. This was considered a very reliable means of gathering information. Mail and telephone surveys were viewed as inaccurate methods that yielded poor response rates. Dillman (1978) changed these perceptions with the introduction of his "Total Design Method." This method provided researchers with a way of increasing response rates and accuracy of mail and telephone surveys. The three methods each have strengths and weaknesses. Money constraints and time commitments are major factors that have to be considered when choosing which method to use.

Other methods of research include focus group interviewing and personal interviews. Focus groups are useful to obtain in-depth views of a small group of the population. Personal interviews can also be useful under specific consequences. Neither of these methods, however,

produces results that can be applied to the entire population. Combining one or both of these methods with mail, telephone, or face-to-face surveys can yield valuable research results.

2.5.1 Mail Surveys

The biggest advantages of mail surveys are that they do not require a large amount of resources to complete, and they are easier for inexperienced researchers without professional help to complete than other methods (Salant & Dillman, 1994). Mail surveys require a lot of preparation time, especially in writing the questions and designing the questionnaire. Once they have been mailed the hardest work is finished. With telephone or face-to-face surveys the interviewers must be ready to answer questions or face issues spontaneously. This is not an issue for mail survey questionnaires because the researcher is not available to be asked or responsible for answering questions.

Mail surveys give respondents the opportunity to complete a questionnaire in the privacy of their own home. For this type of surveying to be successful, a reliable list of capable and willing respondents and their addresses must be available. Another drawback to this surveying is the time involved in response. Up to six or more mailings may be necessary to receive the desired response rate. Pre-mailings are sent to inform the participants of the study prior to the mailing of the survey. If the desired response is not achieved after the first mailing, a second mailing is sent to nonrespondents. This may be followed by a third, fourth, and maybe even fifth mailing. Overall, mail questionnaires are good for projects which do not have an excess of professional assistance, money, or qualified staff (Salant & Dillman, 1994).

2.5.2 Face-to-face Surveys

Face-to-face surveying traditionally has been the most widely used surveying method in the past. It was long considered the only method that would produce the high response rates and accurate data necessary to produce reliable results. At present, face-to-face surveys are

expensive because of the labor required to conduct the actual surveying (Salant & Dillman, 1994). Utilizing this type of survey can be beneficial when a list of the population is unavailable, when the population is unreachable by telephone or mail, or when the questionnaire is complex. One problem that can occur while doing house to house surveying involves the number of trips made to each home. Multiple trips may be necessary if respondents are either not home or are caught at a bad time. Because of this, much of the interviewers' time is spent traveling instead of surveying. Since the interviewers must be paid for the traveling time and surveying time, this results in high costs. To conduct face-to-face surveys a lot of funding and professional help must be available.

2.5.3 Telephone Surveys

Telephone surveys are an effective means of obtaining results in a short period of time. Straightforward questioning and experienced help are important when conducting these surveys (Salant & Dillman, 1994). One problem with telephone surveys deals with response rates. Since people often receive multiple solicitation calls daily, they can be uncooperative with unknown callers such as surveyors. Today, people can also screen their calls with the use of caller identification and answering machines, allowing them to answer only the calls that they want. Trying to get valuable survey information and opinions from a person over the phone is difficult due to the likelihood of the respondent hanging up the phone. One way to prevent this is through premailings. Premailings provide the participants with advance notice that they will be receiving a call to invite them to participate in the survey. This lets respondents know that they are helping with legitimate research, and not being solicited. Other potential problems for telephone surveys are obtaining a directory, and making the assumption that all members of the population can be reached by telephone. Considering how often residents move, there is a high chance of the

directory being outdated. Also, not all people are listed in telephone books and other directories. Fortunately, methods to overcome this problem have developed. Random digit dialing and add-a-digit dialing provide ways to access all numbers whether listed or not.

It is important to have interviewers who are capable of confronting different issues that may arise while doing the actual calling. The participants may have questions that are difficult to answer. In these cases it is necessary to have a prepared supervisor nearby from which to obtain help.

Blankenship (1977) reports that telephone surveys are useful when the population is dispersed over a large area. This surveying technique allows national surveys to be conducted as easily and almost as cost efficiently as concentrated surveys. Blankenship (1977) argues that telephone surveys are vital when embarrassing or controversial topics are discussed. This is because many people find this type of discussion easier when they do not have to look at the person with whom they are speaking. When utilizing telephone surveys, observations cannot be made between investigator and participant. This will cause the respondents to give honest, straightforward answers.

2.5.4 Interviewing

Most marketing research involves some interviewing, but to be effective this interviewing must be carefully planned (Breen, 1977). The three structures used in interviewing are standardized, unstandardized, and semistandardized (Berg, 1998). Standardized interviews are composed of a structured set of questions. The interviewers are required to ask each participant all the questions in a certain order and require an answer for every question. This allows the responses to be compared with other interview responses. Although answers can easily be compared, by using this method the researcher has made several assumptions (Berg, 1998). The

first assumption is that the questions to be asked in the interview will evoke all of the relevant information about the topic from the participants. Researchers also assume that the participants interpret the questions correctly, and that all of the participants will interpret the questions in the same way. It is imperative that these assumptions are met, or the results may be skewed.

Unstandardized interviews, however, do not have set questions that must be asked. The results, therefore, cannot be compared, but they are useful to field research. This type of interview requires that the researcher make a different set of assumptions that are somewhat opposite to those assumed in the standardized interview. The researcher assumes that they do not know before the interview what the essential questions should be, so they cannot write a list of questions like they would for a standardized interview. The next assumption is that the participants will not interpret similar questions in the same way. In this type of interviewing, it is fundamental that the interviewers are prepared to ask unscheduled questions.

Semistandardized interviews are a combination of the previous two methods. For this type of interviewing there is a set of predetermined questions to be asked in a certain order, but interviewers are expected to probe into the answers of those questions. For this type of interview to be successful other assumptions must be made. The questions must be written with words that the participants understand. This means that the question wording should reflect the participants' every day use of language, such as slang. The interviewer can pick up on this language during the interview, and incorporate it into his question. Obviously, the three interview methods presented here are suited for different occasions. It is important to analyze the research situation and determine which method will be the most beneficial.

Interviews can either be personal or group interviews. Personal interviews consist of the researcher asking a person their views and opinions on a specific topic. Focus group

interviewing is a method in which a small group of participants discuss the issue led by a moderator. The purpose of this interviewing is to gather a group of people and examine their viewpoints, opinions, and perceptions about predetermined topics. The results of these two types of interviewing cannot be generalized and applied to the entire population, but they can be valuable in certain situations.

Berg (1998) provides us with a list of ten commandments to follow when conducting interviews (pp. 87-88). The first recommendation he makes is to begin the interview with a casual conversation so the interviewee will become more comfortable with the situation. The next advice he provides is to always keep in mind the information you are trying to elicit, so that you can focus on the relevant topics and keep the subject from diverting to an unrelated topic. He also advises that the interviewer act at ease and appear to be comfortable during the interview. This is important because if the interviewer appears relaxed, the interviewee will be more apt to relax.

It is also important to show the participants that you are listening by using appropriate body language. Make sure the participant knows you are interested in their response. The next commandment of interviewing is to be aware of your appearance and dress suitably.

The location of the interview is also important. The locale should be a place where the participant can feel relaxed. It is also important that participants are encouraged to give a more in-depth answer when their initial response is a simple 'yes' or 'no'. A very crucial step in the interviewing process is practice. The only way for an interviewer to become skilled is to practice and learn from the mistakes that have been made. The last commandment that Berg (1998) gives is to be friendly and sincere when interacting with the subject as well as thankful for their

participation. It is important to keep these ten rules in mind when conducting an interview, since the utilization of the commandments can result in a good interview.

When conducting focus group interviews, there are other things that should also be kept in mind. Berg (1998) provides us with a list of eight essential elements which should be present in focus group procedures. The first of these is to have an objective that is clearly defined and fully understood by the researcher, as well as an understanding of the questions which will be asked.

The second element is group dynamics. The researcher should make sure the group is appropriate for the type of research that is being done. It is also essential to ensure the group members feel comfortable to talk openly with the other members of the group. The facilitator must also listen to what the participants are saying and be able to divert from the schedule if an interesting topic is spawned, but also must be able to bring the discussion back to the schedule after that topic has been explored. It does not matter whether the facilitator is using a list of particular questions or a series of general topics; he or she must be prepared. The facilitator needs to be ready to lead the discussion, but should not offer opinions or comments. He or she should hold a minimal role in the focus group discussion by allowing the focus group members to freely discuss the opinions.

Berg also recommends that an observer be present as well as the facilitator to take field notes concerning group dynamics. The last recommendation by Berg is to systematically analyze the data. The analysis process should be repeatable and allow another researcher to arrive at the same conclusion.

2.5.5 Sampling Methods

After choosing a survey method, it must be decided how the population will be sampled. Sampling methods can become extremely complex because of the error that will occur if it is not done correctly. The many different types of sampling include simple random sampling, systematic sampling, stratified random sampling, and cluster sampling. It is not necessary to sample when the study population is very small because a census can be taken. Sampling, however, provides the opportunity to survey a much smaller group of people and obtain results that can be applied to an entire population.

Simple Random Sampling

The most uncomplicated sample designs consist of simple random sampling. Although this design is uncomplicated, it is the most difficult sample to achieve. Regardless, this is considered to be the most basic sampling method that produces a representative sample (Salant & Dillman, 1994; Berg, 1998). To use this method each person in the population is assigned a number from 1 to N (N being the total number of participants). Then n random numbers are chosen (n is the number of people that will be surveyed). These numbers can be obtained from a chart of random numbers or generated by computer. The participants with assigned numbers N that match the randomly selected n numbers constitute the sample to be surveyed. The sample could also be chosen from names out of a hat. This method is the “foundation upon which the statistical theory of sampling was constructed” (Levy and Lemeshow, p.43).

Systematic Sampling

The use of systematic sampling is widespread because it is easy to understand and apply (Lemeshow & Levy, 1991). To utilize this sampling chooses every nth person to become part of the sample. Berg (1998) explains that a list can be used to generate the sample. A random

number is chosen as a starting place and every nth name on the list is chosen. This sampling can also be done without a list of people. Researchers can also survey every nth person that passes a certain location, and a list does not have to be available.

Other Sampling Methods

Stratified random sampling and cluster sampling are more complex sampling models. In stratified random sampling the population is divided into subgroups. A random sample is then taken from each subdivision. This method is useful when each subdivision has less variability than the population as a whole (Blankenship et. Al., 1998). Cluster sampling divides the population into subgroups and then a sample of clusters is taken. This is a useful method when personal interviews will be utilized (Blankenship et. al., 1998).

2.5.6 Writing Good Questions

When composing a survey it is important to write good questions that avoid emotional and biased words that would cause measurement error (Salant & Dillman, 1994). Salant and Dillman provide a method for writing survey questions. The first step is to determine the type of information that is wanted. The first type is information that identifies people's attributes or their behaviors, whereas the second kind of information deals with their attitudes or beliefs about a certain topic. The next step is to determine the question structure that should be used. The four question types they discuss are open-ended, close-ended with ordered choices, close-ended without ordered choices, and partially close ended. The pros and cons of each of these question structures are outlined in Table 1.

When determining the question structure that should be used, it is important to analyze which will be the most useful. Each type of question is useful in certain situations. To

determine the structure for each question in a survey Salant & Dillman advise that each question structure should be analyzed and tried in different formats.

Question Structure	Properties	Pros	Cons
Open-ended	Respondents formulate own answers, usually produce many different responses	Take little time to write, useful for topics researchers aren't familiar with, helpful when follows close-ended questions, useful if precise info is needed	Demands a lot from the respondents, does not provide consistent, comparable info, takes lots of time to analyze results
Close-ended w/ ordered choices	A complete range of answer choices are provided	Less demanding for respondent, easier to code and analyze than open-ended	Questions take more time and are harder to write
Close-ended w/ unordered choices	Choices are provided but they don't fall on a continuum	Questions are easier to code and analyze	More difficult to answer than when ordered choices are provided, takes more time to write questions
Partially close-ended	Choices are provided and space is left for respondents to fill in their own answer.	Questions are easier to code and analyze	Questions take more time to write and answers are more difficult to code and analyze than completely close-ended questions.

Table 1. The Pro's and Con's of Survey Question Structures

When using ordered answers, the order in which they are presented can affect the result. Keeping the list of choices short or using a series of questions instead of a single question with many answers can help to reduce this error (Salant & Dillman, 1994). The last step when writing survey questions is to examine the exact wording. For example, if questions are vaguely worded respondents may have different understandings of the question and therefore the results produced would be useless.

2.5.7 Survey Error

Salant and Dillman (1994) discuss four main types of error that will be encountered when surveying and how to avoid each one of these types of error. The first error is coverage error. To avoid coverage error every member of the population has to have an equal chance of being

selected for the sample. The second type of error is sampling error. Sampling error can be minimized when the number of people randomly sampled is large enough to achieve the necessary precision. Altering the sample size can control sampling error. This error can only be completely avoided by administering a census instead of interviewing a sample of the population. The next type of error is measurement error. Measurement error results from an inaccurate or incomparable answer given by a participant. This error can be avoided by asking unambiguous questions. The last type of error, nonresponse error, occurs when more than a small percentage of people selected to participate in the survey are not interviewed or when nonrespondents. Since not everyone will be willing to participate in the survey, nonresponse error is hard to avoid. The nonresponse error can be avoided if all members of the sample respond or if the people who do not respond are similar to the people that do respond. It is important to minimize error when surveying, so the results will be as accurate as possible.

2.5.8 Data Analysis

Our interviews, focus groups, and proposed paper survey produced two different types of data—qualitative data and quantitative data. The interviews and focus groups generated mainly qualitative data, whereas the paper surveys will result in mainly quantitative data. The qualitative data which we have collected was analyzed by using content analysis methods.

Content analysis allows researchers to inspect social communication such as transcripts of conversations or other documents. Utilizing this method causes an inspection of words, phrases, themes and even concepts. These elements are counted to determine their recurrence. This analysis method is cost effective, but it is limited to the examination of already recorded messages. We will easily utilize this analysis method because of this.

Information collected from surveying can only be useful and reliable if it is analyzed effectively and appropriately. There are many different techniques for final analysis and reporting of survey data, most of which depend on the type of survey conducted and data received. Understanding types of responses, measurement scales, and variables are imperative for further analytical steps. The basics are necessary for selecting the correct analysis method, and establishing clear relationships or correlations between data.

Initially, it is important to realize that the wording of survey questions and selection of answering options determines the category to which your data belongs. Fink (1995) explains the three possible types of data collected in a survey study --nominal, numerical, and ordinal. Nominal scales cover data without numerical value, such as gender, or name. When answers to questions use an ordered scale—such as excellent, very good, etc., or strongly agree, disagree—the data are ordinal. Numerical data have significant meanings on a number scale. Age, weight, and number of doctor's visits, are all numerical answers. Numerical data can be continuous or discrete; continuous data includes numbers of age and weight, whereas number of doctor's visits is discrete (Fink, 1995).

After reviewing data, most of it can be transformed to the numerical scale. This proves to be most useful for examining quantitative data. Coding and analysis of the quantitative data can be done either by hand or computer. If a small number of questions are asked of the population, then hand coding and analysis is not difficult (Dillman & Salant, 1994). For most surveys, a large number of questions and respondents have been collected and computers are much more effective. Questions and responses are entered into a computer using various statistical software packages such as SPSS, where they can be coded and counted. Keeping a codebook, an accurate copy of coded questions and related responses, will be essential in later stages of data analysis.

Once data are entered into a statistical computer program, various informational details and statistics can be calculated. Computing measures of central tendency and measures of dispersion can aid in the understanding of survey results. Measures of central tendency are explained through use of the mean, median and mode; measures of dispersion and variance are demonstrated through range, standard deviation and percentiles. (Fink, 1995).

The mean, median and the mode are calculated numbers that describe the location of the center in the data distribution. Central measures will be useful when understanding and analyzing the data resulting from our survey. These numbers will determine the most frequent answers, average responses, or typical replies. There are difference definitions and applications for all three calculated measures. Fink (1995) defines the mean as “the arithmetic average of observations” (p. 17). The mean is symbolized \bar{x} , and is calculated using the formula $\Sigma x / n$. The Greek letter Σ means summation, x is each response, or observation, and n is the number of observations.

Example 1.

Observations: 1, 1, 3, 3, 3, 4, 6, 9, 15.

x : 1; 1; 3; 3; 3; 4; 6; 9; 15 (each observation)
 n : 9 (observations)
 Σx : 1+1+3+3+3+4+6+9+15 = 45 (summation of all observations)

$$\bar{x} = \Sigma x / n \qquad 45 / 9 = 5 = \bar{x}$$

One problem encountered when calculating the mean is caused by extreme values within a set of observations—or outliers. The mean is a measure that is sensitive to outliers, which means it may or may not be an adequate central measure depending on the number of extreme values present in data.

The median of data is the middle observation. One-half of the data points are higher than the median, and one-half are lower. To determine the median, it is easiest to list observations from lowest to highest (or highest to lowest). Simply counting to the middle value will reveal the median value. If there is an odd number of observations, the median is the middle number. If the series is even in number then the median found by averaging the two middle points. Fink demonstrates by example how the median is determined if this should occur.

Example 2.

Observations: 2, 4, 5, 8, 9, 11.

Since there is an even number of observations, the median is the average of the two middle points, which are 5 and 8. Thus the median is $(5 + 8) / 2 = 6.5$. Unlike the mean, the median is less sensitive to outliers in data; therefore the median should be used if a few extreme values exist within the distribution of observations.

The mode is a valuable measure when trying to determine frequency or popularity of a certain response. When a prevailing view of response is desired the mode is the best value to consider. The mode is simply the most frequently seen response. Data may have one popular response, making the distribution unimodal; two answers with similar popularity make distribution bimodal. Determining the mode will be important in our survey when trying to determine popular responses, such as frequented locations, transportation means, and effective advertisement methods.

To represent the extent or spread of numerical data, measures of dispersion--the range, standard deviation, and percentiles are used. (Fink, 1995). The range is simply the difference between the largest and the smallest of the observations. Sometimes just the largest and smallest values are used when indicating range. Once the second part of our study is completed,

measures of dispersion may be used to calculate the extent of college students' ages, incomes and discretionary dollars spent.

Example 3.

Observations: 3, 7, 8, 9, 13, 16, 22.

The range is 18, (22 – 3), or the observations range from 3 to 22.

The standard deviation is used in connection with the mean. Considered an essential of many statistical tests, the standard deviation measures the spread of data around their mean (Fink, 1995). Calculating the standard deviation involves a few different mathematical steps. First the mean must be found, then subtracted from each x . Each remaining number from the previous step is now squared; each square is then added together. Lastly this number is divided by a number $n - 1$. The formula for finding standard deviation is:

$$SD = \{ [\Sigma (x - \bar{x})^2 / (n - 1)] \}$$

Due to the complexity, each step is shown and explained in the following example from Arlene Fink's How to Analyze Survey Data (p.24).

Example 4.

Observations: 7, 10, 8, 5, 4, 8, 4, 9, 7, 8.

Number of Observations: 10

1. Compute the mean.

$$x = (7 + 10 + 8 + 5 + 4 + 8 + 4 + 9 + 7 + 8) / 10 = 7$$

2. Subtract the mean (\bar{x}) from each score (x), or $(x - \bar{x})$

3. Square the remainder from Step 2, or $(x - \bar{x})^2$

Observation	Step #2 (x - x)	Step #3 (x - x²)
7	(7-7) = 0	0
10	(10-7) = 3	9
8	(8-7) = 1	1
5	(5-7) = -2	4
4	(4-7) = -3	9
8	(8-7) = 1	1
4	(4-7) = -3	9
9	(9-7) = 2	4
7	(7-7) = 0	0
8	(8-7) = 1	1

4. Sum (Σ) all the squares from Step 3, or $\Sigma (x - x)^2$

$$\Sigma (x - x)^2 = 0 + 9 + 1 + 4 + 9 + 1 + 9 + 4 + 0 + 1 = 38$$

5. Divide the number in Step 4 by $n - 1$.

$$38 / (n - 1) = 38 / 9 = 4.22$$

- Note: the expression $n - 1$, is termed the 'degrees of freedom,' $n - 1$, is used rather than n alone because $n - 1$ produces a more accurate estimate (Fink, 1995).

The standard deviation in this example is equal to 4.22, which can be used when describing the spread of data. Percentiles are a final way to determine the variance in data; it involves the percentage of a distribution that is either equal to a number or below it. As an

example, the median is the 50th percentile, because half of the distribution is either equal to or below the median. Interquartile range is a measure that incorporates percentiles; this method can be used when data is ordinal or numerical. The central 50 % of the data observations constitute the interquartile range, the observations that lie between the 25th and 75th percentiles (Fink, 1995).

After statistics are found for data, conclusions of possible existing relationships or correlations can be made. By using correlation coefficients, it can be determined if correlations exist between certain aspects of data. Through graphs and figures of dependent and independent variables, relationships can be seen visually. Only linear relationships can be seen using the correlation coefficient. For relationships other than linear, another statistic known as a coefficient of determination can be used (Fink, 1995).

Other analysis statistics include prediction and comparison methods. Regression is a technique used to estimate a value based on a relationship. Hand calculation of a linear regression can be difficult, but at present computer programs are capable of doing the calculation quickly and accurately. Comparison of obtained survey data introduces a few other statistical terms; hypothesis testing, statistical significance, *p* values and confidence levels. All of these computations will be essential to the continuation of our study when testing and comparing possible relationships between found data. Existent relationships between variables such as age, college attended, gender and social activities can be extremely useful to our study and conclusions. Determining which factors are linked, and how, will produce a better comprehension of the college market.

This understanding of the market will allow for the eventual development of effective methods or reaching and retaining Worcester's students as consumers.

Ascertaining all of the previous values will only be the first step in an extensive search for valid results. Establishing relationships and visually demonstrating them will also be part of the project. Methods for graphs and figures are well described in Dillman and Salant's, How to Conduct Your Own Survey. Selecting from the numerous available procedures for designing figures, graphs, and finalizing an analysis depends on received data. Because this part of the data will be collected by the following project team, the actual decisions and comprehension of the final analysis steps have yet not been determined.

Implementing all of the possible surveying and analyzing techniques into one project and report would be impossible. Much information and advice exist on the related topics. Despite the difficulty in collecting data, a more arduous task begins in accurately analyzing results. Using the basics illustrated through guides by Fink, Dillman, and Salant was essential in correctly beginning our analysis and will be just as crucial to those continuing our project's investigation.

3. Methodology

Our main task was to analyze the college student market in Worcester. To accomplish this we conducted personal interviews, focus group interviews, and develop a face-to-face paper surveys to be administered to college students in Worcester. Utilizing these three research methods, we were able to obtain valuable information about college students in Worcester. The following methodology specifically describes how our research was conducted.

3.1 Personal Interview Methods

To gain insight into how businesses perceive the college market in Worcester and what they want to know about how to best market to them we conducted personal interviews with business owners or managers in Worcester. We met and interviewed with businesses that had previously contacted Bonny Dearborn, of COWC regarding Worcester's college students. These businesses owners or managers included Larry Abramoff of Tatnuck Bookseller, Jeffrey Rice of the Worcester Ice Cats, Anne McDougal of the University of Massachusetts Blood Donor Center, and Donnamarie Larievy of the WRTA™.

The interviews were unstandardized. Utilizing this type of interview allowed us to "develop, adapt, and generate questions and follow-up probes appropriate to the given situation and the central purpose of the investigation" (Berg, p. 61). Although a list of questions to be asked in a certain order was not used, we were prepared to gain the information necessary to our project through the unstructured interviews. The business interview questions can be found in Appendix A.

The information found allowed us to better determine our survey questionnaires. The survey was designed to find information that would be useful for businesses to know about

students in order to better market to them. These interviews also aided us in the construction of our focus groups.

3.2 Focus Group Methods

To gain another perspective on the issues, focus group interviews were utilized. Focus groups, although they did not provide information that can be generalized and applied to the entire population, did allow us to examine small groups of our population. Salant and Dillman (1994) stress that the purpose of conducting these group interviews is to "stimulate people's thinking and elicit ideas about a specific topic," (p.20). Berg (1998) expresses that focus groups are beneficial because they "provide a means for assessing intentionally created conversations about research topics or problems" (p. 104).

We conducted one focus group interview on each 4-year college campus in Worcester (Assumption College, Clark University, College of the Holy Cross, Worcester State College, and Worcester Polytechnic Institute). These colleges were chosen because they were the 4-year universities within the city of Worcester. Although Becker College now has a four-year program, they are not included in our study because we found that the majority of students are in their 2-year program and/or are part-time.

Focus group participants were selected using purposive sampling. This sampling method allowed us to choose participants because of their characteristics instead of randomly selecting them. This procedure did not allow us to apply our results to the entire population, but we were able to find a sense of what some college students feel. This helped us to write the questions for our proposed face-to-face surveys.

When the participants arrived they were asked to sign a confidentiality agreement. This stated that discussion during the focus group would be kept confidential between participants and mediators. This measure was taken to make the participants feel comfortable to share their thoughts and insights with the group. A copy of the confidentiality disclaimer can be found in Appendix C. It was important for us to ensure confidentiality for a few reasons. The first is that a participant may be put at risk of tyranny if the public can associate them with their responses. Another risk is that publication of the research may cause the participant to be embarrassed or even pursue measures of judiciary discipline. Also, when confidentiality is provided, people feel more comfortable participating the research and are therefore, more likely to take part.

Berg (1998) indicates that the size of the focus group interviews should be kept to about seven participants, and Salant and Dillman (1994) suggest that the focus group should contain no more than eight to ten numbers. We aimed to have about eight participants in each of our focus groups. The group interviews we conducted had between 7-10 participants. The focus group sessions were both videotaped and tape-recorded, so that we were able to transcribe them after they were completed. The transcriptions were analyzed using content analysis methods and a report of the common themes, opinions, and topics was written. These commentaries can be found in Section 5.2. A moderator was present to guide the discussion and to keep the participant's on-topic. Refreshments were served as an incentive for people to participate.

3.3 Survey Methods

After conducting the focus group interviews, a paper survey was developed for future implementation on each of the four college campuses involved in our study. This was done using the information gathered from the personal business interviews and focus group sessions.

The survey was pretested on a group of students. These students used to pretest the survey were randomly chosen from a group of our peers. During the pretesting the participants took the survey and then their perceptions and opinions on the wording of the questions were gathered. This helped us to revise and finalize the questionnaire.

The survey asks students about their behavior, attitudes, and beliefs. The questionnaire consists of both open and close-ended questions. Because open-ended questions usually yield various or inconsistent answers, only a few were included in our survey. The open-ended questions used will be useful to gather information about the behavior of the participants (i.e. how many times they frequent a location). Close-ended questions constitute most of the survey questionnaire.

The intended population will include enrolled undergraduate students attending a 4-year college or university in Worcester. To find the number of students that will need to be surveyed at each college we took a weighted sample. The student population at each school was divided by the total student population of the city. This fraction was then multiplied by the total sample size. The result of is the number of students who will be surveyed at each school.

The total population is currently estimated at 11,894 members. To determine an accurate sample size, we obtained an approximation from a table with 95% confidence level in Salant and Dillman (1994, p. 55). In this survey an 80/20 split has been assumed. Our determination of this split resulted from the presumption that roughly twenty percent of the students will have a different opinion than the opinion of the majority in the sample. We decided to aim for a +/- 5 % sampling error. Because our population size fell between 10,000 and 25,000, we had to

interpolate an estimated number of surveys needed in our study. The necessary numbers to achieve at each campus are illustrated in Table 2.¹

<i>College /University</i>	Full-time Undergraduate Student Population	Student Sample Size
Assumption College	1,942	39
Clark University	1,928	39
College of the Holy Cross	2,778	55
Worcester Polytechnic Institute	2,671	53
Worcester State College	2575	52
Total of Schools	11,894	238

Table 2. Enrollment Numbers and Sample Sizes

At each college a table should be set up at a spot on campus that many people pass through each day. The Student Life staff members will suggest these locations. Systematic sampling will be used (Berg, 1998) to select the sample. A random number, n , between one and ten will be chosen, and then every n th person that passes by the location will be surveyed. As the n th person approaches, a chance mechanism will be introduced by flipping a coin. If it lands on heads, attempt to survey the person, but if it lands on tails do not. Systematic sampling was chosen because it is known to be easy to learn and apply for people without formal training in surveying techniques.

During the survey process, the people who implement the survey have to be careful about the error introduced into the project. To avoid coverage error every member of the population has to have an equal chance of being selected for the sample. In order to reduce the coverage error in the sample we chose to conduct our survey at a random location on each campus and to survey every n th person. The second type of error we want to avoid is sampling error. Although

¹ The enrollment numbers used in this table were received from Registrar's offices at each school.

this error is not completely avoidable, having a large enough sample to achieve the necessary precision can minimize the sampling error. In this case, a 95% confidence interval will be achieved. The next type of error to avoid is measurement error. Asking unambiguous questions should eliminate the likelihood of this error. The method we used to construct our questionnaire was an integral part of avoiding this error. The last type of error to avoid is nonresponse error. To avoid this incentives should be offered to survey participants. If errors are minimized, viable, useful results will be produced upon completion of the survey.

4. Analysis and Results

4.1 Business Interviews

Tatnuck Bookseller, Paul Richard

Tatnuck Bookseller owner Larry Abramoff has been trying to design a program in order for Worcester college students to get more out of the city. Combining Worcester's history with current attractions and happenings, Abramoff hopes to better inform college students as well as residents about the city. In addition to making students aware of Worcester's attributes he hopes to get them more involved with the community through volunteerism and other local programs.

Before embarking on the idea, he has attempted to first understand college students' perception on various aspects of Worcester, including the opinions about downtown area, safety, job market, history and offerings. Tatnuck Bookseller had planned to conduct focus groups and a paper survey of college students within the city prior to further design or implementation of their potential project.

University of Massachusetts Blood Donor Center, Anne McDougal

Anne McDougal is responsible for maintaining the blood supply at the UMass Blood Donor Center. Although she is not trying to make a monetary profit, a large portion of her job involves marketing and sales. To maintain their blood supply she has to sell an idea – the idea that blood donation is a good, worthwhile thing to do. Her main goal is to determine what they can do to entice people to go to UMass and donate blood. Since college students make up a large portion of the city's potential donors, Anne is very interested in reaching this target market.

McDougal admits that she is guessing when trying to decide what it is that interests college students. The Blood Donor Center has implemented many programs intended to make blood donation quick, easy, and worthwhile. To make transportation more convenient they offer

free valet parking for anyone donating blood, they validate parking in the nearby parking garage, and for their students, a shuttle runs between Memorial Campus and the UMass Medical Center. Also, after every donation, the donor receives a four-dollar gift certificate to use in the cafeteria, gift shop, or bookstore. These can be saved up and used at any time. They also give out t-shirts with every fifth donation. All of these programs have been implemented in order to get more people to donate blood, and to donate it as often as possible. However, when asked if she had done anything to inform the college students of these things, she replied that nothing had yet been done. It seemed that they just did not know how to advertise to the college market.

Another concern of hers was informing students about blood donation before they took the time to go and donate blood. There is a lot of information college students and other donors should know before arriving to donate. For example, you will be deferred if you have had a tattoo within the past year. You should also eat before you donate blood. She would like to find a way to inform students of things like this before they go to UMass donate blood, so that they will not take the time to go there only to be deferred.

In the personal interview with Anne McDougal, it was obvious that she is very interested in the college market, but like many businesses she does not know how to reach them. She made many generalizations about college students which, if incorrect, may cause her to use ineffective marketing techniques.

Worcester IceCats, Jeffrey Rice

Jeffrey Rice, representing the Worcester IceCats hockey team, had some concerns and questions regarding the college student market in Worcester. He, along with his PR team, had established three reasons why students do not attend IceCats games. Transportation was

assumed to be the largest explanation for low student attendance. He also noted that many students had ‘other costs’ and were not aware of the available student discount.

IceCats PR team is currently printing game schedules in local newspapers. They have had some success arranging trips to games with Resident Advisors and fraternities as well as hosting specific nights for a college. Events such as “Holy Cross Night,” have generated a good response from employees and students of the college, who attend the game at discounted ticket prices.

The IceCats are looking for better ways to advertise to the college students, and Rice is looking to find out some thing about them. An estimation of student’s excess spending money, time spent on the web, and ways to publicize the discount would all be invaluable for the IceCats to devise a college targeted marketing plan.

Worcester Regional Transit Authority, Donnamarie Larviev

In the personal interview with Donnamarie Larviev, we discussed what had been done by the Worcester Regional Transit Authority (WRTA™) in its attempts to contact and attract college students to their business. The WRTA™ was dissatisfied with the results of a previous survey of college students’ transportation conducted by CJI. The WRTA™ did not learn what they wanted to know, and still had a number of major questions that were unanswered, by the CJI survey.

The WRTA™ wanted to know whether or not college students who use public transportation, utilize the WRTA™ ’s web page. The WRTA™ has found that their site attracts very few online visitors and wanted to find some of the reasons behind this. For example, they would be interested to learn if students are even aware that the site exists, do they find it easy to

navigate, whether or not the information posted is useful, and what if anything they would like to see added to the site.

The WRTA™ also wanted to know what attracts students to public transportation and what could be done to attract greater numbers of student customers. They would like to know students' opinions and expectations of public transportation. The WRTA™ was also interested in learning what kind of reputation they currently had among college students. Larviey expressed her desire to market to college students and make the public transportation system as easy and attractive as possible for students' use. She stated, however, that she would be interested in finding out specific answers to questions concerning students' use of public transportation and was therefore very much in favor of a detailed survey being conducted. The WRTA™ also wanted to know if students would be more attracted to the bus system if changes such as expanded hours, special student rates, increased number of routes and bus stops, were implemented. Larviey and the WRTA™ were also interested in student's suggestions for the design of such changes or programs.

Overall the WRTA™ was very interested in the college market and has made previous attempts to research the students' views of their services. Because the WRTA™ was not completely satisfied with the results of the previous study, they have questions and concerns regarding the students in Worcester that coincided with the goals and purposes of our study.

4.2 Focus Groups

Assumption College

Our focus group at Assumption College proved that there are many differences amongst Worcester's college students. Although the students of Assumption College shared some of the same opinions as students at WPI, lifestyles of each group were fairly dissimilar.

When asked what they did on a free evening, all of the surveyed Assumption students usually stayed on campus. Most nights were spent casually--hanging around in the dorms of the college with some friends. Some of the students, who were old enough to drink, would start an evening at a restaurant or bar, before heading back on campus to socialize. Cactus Pete's, Irish Times, and The Boynton were some of the places named by the older students as popular places to start the night's activities.

If students did venture further off campus for the evening it was usually to see a movie or to get something to eat. Showcase Cinema North is frequented by all of the students at our Assumption focus group, but not more than once a month due to the price of tickets. Unlike a few of the participating students at WPI, none of the Assumption students had ever gone to the West Boylston Cinema. At least two of the students questioned at WPI go there most often to see movies. More often than going to the cinema, Assumption students rent videos from Blockbuster to watch back at school. Nearly a third at Assumption's focus group rented movies roughly once a week.

Trips for food were the largest reason students left campus. This included eating out and grocery shopping, although only one of the students interviewed at Assumption grocery shopped regularly. Dorms at Assumption are not equipped with stoves or other kitchen appliances; this set limits on the amount of cooking on-campus students can do. For the rest of the students most

dinners off-campus were related directly to how much money they had to spend. Take-out fast food was most frequently consumed, but small privately owned diners were the most popular place to sit down and eat.

Since only two of the Assumption participants had personal transportation, a majority of the students found getting places to be rather difficult. Because of this, the students admitted that although many of them do leave campus to eat, much more food is called for delivery to the campus from local restaurants, especially at later hours of the night. A desired meal late at night was also a particular concern of one student at WPI's focus group.

Besides food, other shopping drew Assumption and WPI students alike off of campuses. Students from both universities traveled to Solomon Pond Mall, and Greendale Mall. The Assumption participants visited Greendale more frequently than their WPI counterparts. Assumption students mentioned BestBuy as the most frequent reason for going the Greendale Mall; it should be noted that this anchor store was not yet open at the time of our WPI focus group. Whereas students at the WPI focus group mentioned shopping at smaller stores and shops, students at Assumption shopped primarily at malls. One striking similarity between the students questioned at each school was their complaints about the Worcester Common Fashion Outlets. Assumption College students clearly stated reasons and suggestions for the malls present downfalls. Store choices, and undetectable 'outlet prices' were the two most common criticisms of the mall. Surveyed students at Assumption wanted to see stores such as Gap, Abercrombie & Fitch, American Eagle, J. Crew, and Funcoland. They also agreed that they would go to the Worcester Common Fashion Outlets with or without these stores if prices were lower than other malls.

Concerning Downtown Worcester, students of both college focus groups had universal responses. Every participating student had derogatory opinions regarding the downtown area. The complaints varied between the campuses from safety issues and parking to hours of operation and attractions.

At Assumption initial dislikes started with the Worcester Centrum Centre. Nearly all of them had been to the Centrum within the last year, either for a concert or sporting event, but all thought most Centrum events were not geared to a college audience. The students did not think enough college bands, sports or attractions were hosted at the Centrum.

Another area of criticism was the number of attractions the Main Street section had to offer. Assumption students wished more clubs and restaurants were located downtown to make the area more appealing to students as well as the general public. Store hours were not a particular problem for the Assumption students as they were for some of the students at WPI. As one Assumption student stated, “If I never go down there anyway—why does it matter what time things close?” Lastly, Assumption students blamed safety as a reason for not travelling downtown.

Transportation was a more important issue for participating students at Assumption than was previously seen at WPI. Fewer students at Assumption College have their own car, so almost all of them call taxis for most of their transportation. Students explained that they relied so heavily on taxis, that often cabs are ‘stolen’ by other students who could not find their own. Regarding other forms of Worcester transportation, Assumption students responded almost identically to WPI students. Very few at Assumption had ever used the WRTA™ services, and for the same reasons WPI students did not. Schedules and prices did not seem to fit well with the Assumption College students’ needs. When asked questions about using the train stations and

airport in Worcester, students from Assumption strongly agreed with WPI respondents. At Assumption, students believed that the inconveniences associated with the availability, frequency and diversity of the trains and planes leaving the city were more than enough reason to not even consider them a valid option.

Focus group members at Assumption shared an enthusiasm for newer and better ways for businesses to reach them. Each of them admitted they knew very little about places to go or things to do in Worcester, and wished that more was made available to them. The students also said that discounts offered from businesses were strong incentives for them to become customers. All of the students also realized that they currently buy most products and food from the places they know offer discounts. Discussing means for businesses to advertise such discounts or offers produced some interesting and creative responses. Assumption students, unlike those at WPI, are very responsive to e-mail, including commercial e-mails. Through further conversation, there was a proposed idea of a weekly e-mail containing that week's student offers, discounts and special events in the city. The students were unanimously excited and supportive of such an advertising means.

Assumption students added that both their bimonthly newspaper, and their postal mailboxes could be used for contact from businesses. Every one of the interviewed students at Assumption regularly checked and read their paper mail, as well as perused the campus newspaper.

Overall perceptions of Worcester varied amongst the individual members of Assumption's focus group, just as in the focus group at WPI. Most of the students of Assumption thought that Worcester offered the necessary amenities for college students, and only one student questioned the safety of the city. Besides the transportation problems and

dismal outward appearance of the city, most statements made by the students were approving. In concluding the discussion session, two students in particular made a strong request for more communication and unification between the colleges. Together they indicated a few ways that the colleges could work effectively together. Cooperating to institute a free college shuttle across the city as well as the campuses, and joining to sponsor large student events such as concerts and festivals were two of their propositions.

Overall, information from and about the Assumption students was beneficial in determining differences and similarities between the campuses studied thus far. In many aspects the students at Assumption surprised us with their responses. Discussing things with the Assumption students made it apparent that even as college students ourselves, we do not know everything about college students.

Clark University

When we conducted our focus group of Clark students a number of important topics were discussed. These topics can be divided into a number of different categories, but overall there were fifteen major subjects that led the conversation.

The first topic that was discussed concentrated on what the students did in their free time and on their weekends. Some of the participants complained that there was almost nothing of a social nature to do on the weekends. The students did not specify exactly what they did do; however, the major consensus was that they “hung out” around the campus. One student mentioned how during these times she preferred to go to the library and read.

Conversation then progressed to the students’ spending habits: which stores they frequented, what they would like to see, and what was important when deciding where they would shop. This topic introduced an issue that permeated the rest of the focus group

discussion—many Clark students do not have cars. Therefore when choosing where to shop, the store's proximity to campus was a major concern. Lack of personal transportation seemed to also affect their suggestions for stores they would like to see. They felt that for any store to be convenient to use, it must be close to campus. When the students were asked which stores they frequented most, their overwhelming response was Store 24[©]. They stated that while the stores' prices were not as low as some of the other local convenience stores, because it was located just off campus it was more of a draw than other stores that were not as close. When asked what stores they would like to see, the students had quite a number of suggestions. The first and most popular suggestion from the students was for a large CVS[©]. Participants also mentioned a need for places where they could buy both new and used books. Lastly, some students requested a junkyard where they could find useful or serviceable items.

Conversation then turned to the subject of entertainment. The students stated that they went to the Worcester Centrum only if there was a good music group or band they knew playing. Some seemed to be more interested in local entertainment, and preferred to see a local jazz club open in the area. Another student mentioned how she would like to see a coffee house with open microphone nights.

At this point the students spoke about Worcester's eating establishments and restaurants. One of the students complained that many of the restaurants served very greasy food and requested a place where other items were served. The students also noted the lack of diversity in the food available. Some of the participants thought that Worcester lacked a place where one could get international food other than Thai, Indian, and Ethiopian. They stated that they would like to see more restaurants that do not serve common food. In addition, they mentioned the need for a twenty-four hour diner, and again emphasized that it would need to be close to

campus. They specified that this diner should be a small family run organization and not something from a large chain, since they felt that smaller family-run businesses were in general better than large restaurant chains.

From there students began talking about the downtown area. This topic generated a lot of discussion. Many of the participating students remarked that there were too many ‘tall ugly buildings.’ Most present wished to see more of these buildings torn down and replaced with open areas like parks. Students of the focus group noted the general lack of park in Worcester, and believed this to be a shortcoming of the city. The Clark students also added that they would like to see a zoo downtown to improve the area as a whole. They proposed that new buildings should be constructed with better architectural designs in order to be more visually appealing. More public artwork in the downtown area was another suggestion from the students. Two specific requests from students were for gargoyles be put on the buildings and more public statues be placed around the area. A few students added that there should be fewer stores that were combination liquor stores in downtown Worcester.

When asked what would attract them to the downtown area, they seemed to focus upon cultural things. For example, they stated that they would like to see many more theaters downtown. Their requests, however, were not only for movie theaters. While they would like to have a theater where one could see currently playing movies, they also wanted a theater where it would be possible to also see foreign movies or older movies. Students wished to see stage theaters as well, and a few students mentioned how they would like to see an acting theater where plays are performed. Finally, they also mentioned that one of the things they would like to see would be a Planet Hollywood®.

At this point the students reemphasized the importance of transportation in all of these events. They made it very clear that very few students at Clark University had cars. They stressed that transportation was a major, if not the primary, concern when doing anything-- whether in Worcester or otherwise.

The next discussion surrounded the public transportation system in Worcester, what they liked and what they thought needed improvement. Most of the students stated that the buses themselves were fine and did not seem to have any problem with the vehicles. The students complimented the WRTA™'s system, and felt that with a few exceptions the bus drivers were very congenial. They noted, however that many of the bus routes are centered around City Hall, and they disliked having to go to city hall to catch a bus. The students thought that this defeated the point of having a bus line at all. They requested more stops and routes and that the busing system become less centralized on Worcester's city hall.

Discounts available to college students were the focus of the following conversation. Aside from the mention of a discount for college students at Wendy's the participants were largely unaware of discounts or deals offered specifically for college students. When asked about what general discounts or attractions they liked, one of the students mentioned how often he sees, and uses the offer that what one buys is free if you do not receive a receipt . On the topic of things given away by businesses, they stated that they enjoyed useful free things that were given away but not useless items that they would throw away as soon as soon as possible. The interviewed Clark students seemed to agree that free food also worked well.

On the topic of how businesses can reach students, the group stated that they specifically avoid businesses that aggressively marketed to college students. They disliked businesses that called them on the phone, spread a large number of flyers on the campus or set up a table outside

their dorms. The students confessed that the advertising they used most often was the yellow pages, and if a business wanted to make itself known this was the probably the most effective way. Also they stated that they preferred that businesses would offer consistent good service rather than a few flashy sales to try to attract their attention. They believed a business' product should be a deal in itself and that the product should stand on its own without the need of special offers.

From there the conversation progressed from how they found out about businesses and events. Again they reiterated the dislike for aggressive advertising. The students said that flyers did occasionally work in this case. The main way that most of them found out about events was by word of mouth.

The students did listen to the radio, but again they discussed their problem with radio, which they believed was again too heavily laden with advertising. The students said that the stations they listened to the most were Clark University's campus radio station and National Public Radio[®].

From radio, the topic then went to newspapers and what the students usually read. The students said that they often read the free local papers. In addition they stated that they also read The New York Times[®] and The Washington Post[®].

The topic then changed to how the Internet factored into their shopping habits. In general the students rarely if ever bought anything off of the Internet. They did, however make use of the Internet to look up information about products, which they were interested in buying.

Finally the conversation ended on the topic of whether or not they would stay in Worcester when they finished college. One of the students felt that he would not mind taking a job and living in Worcester. He seemed to be more concerned with job availability than where

he lived, and would not mind living in Worcester provided he had a job. Other members of the group said that they would most likely not stay in Worcester after they graduated. They felt the city as a whole was too industrial and that there was not enough culture to be found. Most of the participating students preferred to live in an area that was much more rural. Others stated that if they did decide to live in a city, there were better cities than Worcester in which they could live.

Some of the responses received from the students in the Clark focus group were similar to the responses received from a number of other focus groups. Conversely, there were a number of other responses that were completely unique to this particular group. As in all of the other groups, the students mentioned an affinity for free items being useful in attracting their attention. Like other interviewed students, Clark's participants were mostly unaware of many of the available discounts and offers for college students. Unique to this group were the feelings against aggressive advertising and the strong preference toward more passive kinds of business advertising like using the yellow pages. This focus group was also unique in not mentioning any of the malls, either in Worcester or otherwise. This can be attributed to the fact that few students have their own automobiles at Clark. Without cars the Greendale Mall and the Worcester Common Outlets may have been too distant for the students to frequent there. Overall, this group, while sharing a number of trends with the other groups, was distinct in a number of areas. The reason for the Clark University students' varying views and behaviors may result from the lack of personal transportation: further research and interviewing may be able to verify, or correct this speculation.

College of the Holy Cross

Interviewing students attending the College of the Holy Cross introduced some new topics not discussed at previous sessions as well as reiterated prior concerns and ideas from

students. Since each campus has a unique group of students, and a different location within the city, all of the focus groups had slightly various lines of discussion, and hit a variety of subjects.

When asked what they did on a typical free night, the students from Holy Cross did not mention very many activities. Some of the students stayed on campus and played computer games with others, while a few students hung out with friends at both on and off-campus gatherings. One student said he goes off campus about fifty percent of the time. Another student pointed out that many times they want to do something at ten o'clock at night but because it is later at night there is nothing to do. Even if there was something to do, the student pointed out that they would have no way to get there. Transportation was quickly pointed out as the main problem for students getting places. Both first and second-year students at Holy Cross are not allowed to have automobiles on campus, this immediately creates a problem for almost half of the school. Like the other Worcester colleges, we found out that Holy Cross also has a parking problem on their campus. Of the students attending our group session, only two had regular access to a car. The rest relied mainly on taxis, but also occasionally used city and campus bus services. They conveyed that one reason they do not go off campus as much as they would like is because of the cost in taking a taxi.

A few students mentioned leaving campus to go to the malls. Solomon Pond Mall, Worcester Fashion Outlets, and the Auburn Mall were all named. This was the first mentioning of the Auburn Mall in all of the campus focus groups, and also the first time the Greendale Mall was omitted. Another striking difference from previous focus groups was that the Holy Cross students did not have any major problems with the Common Outlets. There were no references regarding the quality of the stores within the mall and no suggested improvements. The only issue any of the students had at all again surrounded transportation costs---concerning both time

and money. Nearly all of the students complained about the availability or cost of taking taxis and buses around the city.

Holy Cross students again spoke out of accordance with the other campuses when they spoke fairly highly of the restaurant offerings within the city—especially in the downtown area, where Assumption students had primarily requested more options. One participant from Holy Cross listed more than eight restaurants he enjoyed, a majority of which surrounded downtown Worcester. The students all admitted that they have food delivered most frequently, and some went out to eat as often as three times a week.

When discussing where students went off campus other than malls and restaurants London Billiards, Jillian's, Café Dolce, The Palladium, and The Source were all mentioned. There was disagreement about some of these places. While some participants enjoyed going to Café Dolce and The Source, others did not like them at all. When asked about attending events held at other campuses, students responded that they were not sure when events at other colleges were even being held. Students present agreed that there should be intercampus events held for all of the Worcester colleges.

The Worcester Centrum Centre was not mentioned very often in the Holy Cross discussion. Some of the students had never been, whereas other students complained of not hearing about the events that the Centrum holds. One student felt that they should include more entertaining events in their schedule, and another student suggested that the Centrum should have a Broadway show come for a week.

Although we asked students about their perceptions of the city of Worcester at every campus, students at Holy Cross voiced a different issue. Rather than having very strong views of the city itself, the students of Holy Cross held strong views about how they were seen by the city,

its businesses, and citizens. All of the students at the focus group clearly felt hated by the city because of the previous incidents involving arrests of students at parties. Because of these incidents, the students feel that Worcester's citizens and government view them poorly. The students of the focus group felt they were the subjects of discrimination. One student felt that the Worcester police stopped him simply because he has a Holy Cross sticker in his window. Others feel that people judge them when they say they are from Holy Cross. The students are unhappy about the bad reputation they received because of what "1% of the school does." The students believed businesses should be aware that the Holy Cross students may not continue to patronize their stores if they are subject to discrimination when they do visit.

Regarding Worcester's physical appearance, Holy Cross students agreed with other students of Worcester: the Holy Cross participants also felt that Worcester is unattractive because of its post-industrial appearance. The students thought that the old factories should be renovated, such as Boston did to some of their old factories. An improvement to the airport was another suggested change for the city, as was mentioned by previous students at other campuses. Holy Cross students reiterated the opinions of their peers at other campuses when discussing further needs for the city. They thought the city could cater more to the college students by opening more clubs and bars. The students also felt that Worcester should have a commercial and park area with benches where students can go to relax and socialize. This place would have places to shop and eat as well as a park area with trees similar to the Fanueil Hall district in Boston. Another student suggested that Worcester should have a larger, higher quality theatre. One good thing that the participants mentioned about the city was the availability of volunteer opportunities close to their campus.

When asked about media, the students mentioned that they have a student newspaper, but they do not like it. One student mentioned reading the Telegram and Gazette. Like the campus paper, the campus radio also seemed to be unpopular. The participating students all agreed that the best way to notify them is by e-mail and by paper mailings. They feel it is important to provide directions when notifying them of an event. Students thought if it was put into the newspaper it may be effective because the small portion of students that read the newspaper would notify the other students of what was happening.

When the focus group participants were asked whether they thought Worcester was a middle-class city, most felt that it was not. Some students felt that it had poor and rich neighborhoods but no middle ground. Another student felt that it might have a small middle class area that consisted of a couple blocks. The participants felt that Worcester has the basic things you need to live, but it does not provide the things a college student wants. This last perception was entirely similar with what was heard from the other Worcester college students.

Worcester Polytechnic Institute

In our focus group of students who attend WPI, a number of topics were discussed: many of these topics are important and useful to the survey of college students that will be conducted by the future team. The focus group discussion at WPI had eleven major topics.

The first of these topics dealt with weekend activities. We wished to know what exactly WPI college students did on their weekends. The most prevalent answer given was seeing a movie. These movies would be either seen at home or in a movie theater. Other activities included seeing a Worcester IceCats game and going to parties.

The next topic centered on the reasons students go off of their campus other than entertainment. Eating and shopping dominated the conversation. Shopping was the topic that

was mentioned most often. Two types of shopping were listed, grocery shopping, and shopping for other miscellaneous items. Shopping for items was clearly the more popular of the two, and students mentioned doing it twice as often as they mentioned grocery shopping.

The topic that was discussed subsequently was transportation. Much time was spent discussing this topic and there were a number of important opinions expressed concerning the Worcester Regional Transit Authority. One part of the discussion dealt with the fact that freshman at WPI cannot have cars on-campus. One member stated that if they wanted access to an automobile they would have to borrow one from a nearby relative. Some of the upperclassmen stated that even though parking was a problem on the WPI campus, using their own car was definitely their preferred way of transportation. We asked the group if they used the campus shuttle or city bus, and we found that some of them did. Some said that they had used the campus shuttle to get to other colleges and one person mentioned a time they had used the bus to get to the Worcester Public Library. When we asked the others, why they never used the public transportation system we were told by some that the bus was too expensive to use on a regular basis. Others in the group replied that with a car there was no wait, like there is when a person needs to wait for a bus to come to their stop. Another response given by many of them was that it was usually cheaper and easier to walk someplace than to use the shuttles or bus-line.

The group then discussed shopping. A couple of them felt that all of their major shopping necessities were met in the area surrounding WPI. One of the participants always left Worcester when they had any important shopping to do. They preferred to drive to the Solomon Pond Mall rather than do any shopping at one of the Worcester malls. Other members of the focus group stayed in Worcester whenever they shopped and did so at the Worcester Common Fashion Outlets and the Greendale Mall.

The conversation then moved to the topic of the downtown area, and why they went, if they went at all. The most popular reason that the students went downtown was for the stores that are located there. A few people stated that they went to downtown Worcester only when they did not have a choice. This was often because of some service provided downtown that they could not find elsewhere in the city.

This conversation led directly to the reasons why some people chose not to go downtown. The appearance of the downtown area was a major factor in the students' decisions. A number of the students described downtown as 'cold' and 'crowded'. They stated they the buildings were ugly and dirty, and that the entire area exuded an unfriendly feeling. Many of the students then voiced their requests for more parks and public areas downtown. In their opinion this would make the downtown area more attractive, while at the same time giving it additional space and a feeling of warmth. Another major complaint of downtown Worcester was the closing of Showcase South. Students noted that this local theater was a major draw for the downtown area and should be reopened or replaced. Finally a number of students stated their dissatisfaction with the variety of restaurants in the downtown area and said that they would like to see a greater variety in the types of places to eat downtown.

College discounts and students' knowledge of discounts and offers was the next subject of discussion. Discounts mentioned by the students in the focus group included a discount on parking at Worcester IceCats games, a discount on your bill at the Friendly's on Highland Street, and the discount that allows students of the Worcester Consortium to get into the Worcester Art Museum for free.

At this point the topic shifted to how businesses can reach the students to inform them of services, products or discounts. Web advertising was the most favored way of reaching the

students, however they specified that this advertising must be easy to find and simple to understand. The students suggested having a link from WPI's main web page for students to click on to find out about all of the discounts, values, and events going on currently in the city of Worcester. This brought up the topic of the Social Web, however it was generally agreed upon that the social web was extremely difficult to find from WPI's web page, and not worth the effort to locate. A direct link to WPI's main homepage was also suggested by some of the students. Another effective way of reaching the students was through campus bulletin boards. Students professed to reading them often, but expressed a desire that the flyers on them be kept up to date. Students also suggested using postal mail boxes to contact them. The students remarked that anything with the words 'free', 'discount', or 'coupons', usually got opened, read and often saved. These words were stated as generally being the most effective way of grabbing the students' attention whether it was on a web page, bulletin board, mailing, or in the campus newspaper.

The campus newspaper was the last way mentioned for effective advertising to students. Students said that they often looked at it, and when they read through it, would take note of some of the advertisements inside. Advertising on television was said to be moderately effective, however not all students had a television or the free time to watch it. Also all televisions on campus were tuned only to the campus channel and the students observed that no businesses had ever advertised there. The campus channel was the television station mentioned most often. ESPN was watched by one student, and a few participants said they watched the news.

Students of the focus group then shifted their statements to ineffective ways of advertising. The foremost among these was advertising by email. Students said that if they ever received anything that looked like it was from a business they would automatically delete it,

without even bothering to open it. Radio was also stated as being extremely ineffective. Most of the students felt that WPI's campus radio station was ineffective since it could only be played through a television and was never broadcast outside of cable connections and the Internet. Finally some students mentioned that due to the added cost of subscription, off-campus newspapers, like The Worcester Telegram and Gazette were ineffective at advertising to students at WPI. One student stated that free newspapers like the Worcester Phoenix were occasionally read and might be effective.

The topic of conversation next became whether or not the students would stay in Worcester after graduation. One student stated that under no circumstances would they ever stay in Worcester after graduation. Many of the other participants stated that while they would most likely not stay in Worcester they would give it more consideration if a few things about the city changed. The largest issue from their point of view was that they felt there was a severe lack of technically oriented jobs in Worcester. Most of the students agreed that they would be most likely to stay in a place where they had job security, and they did not feel this was possible in Worcester. Some students also stated that they would like an affordable house with a yard, and they did not feel that this could be found in Worcester. A few participants did say that they would live in Worcester after graduation; they agreed that due to the lack of technically oriented jobs in the city, they would most likely have to commute elsewhere to work.

The last aspect of the focus group surrounded students' overall perceptions of Worcester. During the conversation of this topic the airport was discussed in depth. Many of the students complained about the airport's inefficiency. They stated that the airport could not be reached by any major roads and in general the airport had a bad reputation. They were also displeased with the fact that no major airlines used the Worcester airport. One student claimed that the airport

terminals were old and outdated, and that all flights were cancelled at the slightest indication of inclement weather.

Regarding the student's perceptions of the city in general, most felt that while Worcester is a fairly likeable city with some inexpensive apartments, they felt that Worcester needed a greater variety of entertainment and later hours of operation for stores. The students also complained that Route 9 was the only major highway in the city and it was not useful for commuting. Participants also felt that Worcester had no real middle class, just rich and poor sections, with nothing to divide the two. When one of the students brought up the topic of the planned incoming T-line to Boston, the general consensus among the group was that this would either force Worcester to become more competitive or destroy Worcester's economy by having all of consumers in the city go to Boston for their needs. The students in the group felt that while the city has everything necessary for surviving, it does not have everything a person would want from a place to live.

Lastly, the students compared Boston and Worcester. The students felt that Boston served students better with a greater variety of discounts, entertainment, and deals in general. Students felt that Worcester offered more for minor purchases, grocery shopping and eating at fast food restaurants. Overall, the consensus of the group was that Worcester fared very poorly when compared to Boston.

The students in the WPI focus group expressed a number of opinions that were similar to many of the other focus groups. For example, their opinions about the downtown area was similar to that of students from Clark, Assumption and Holy Cross. Students from all three campuses requested more parks or open-areas in downtown or elsewhere in the city. The WPI focus group also shared an opinion that other focus groups had put forth, namely that free items

were useful for obtaining the attention and interest of college students. Students from WPI made the only mention of the Worcester Airport. Also, due to the technical specificity of the school, these students were the only ones who felt that that Worcester did not have enough job opportunities. In general, students at WPI had much in common with their college peers at other city campuses, as well as some unique opinions and views of their own.

Worcester State College

The focus group conducted at Worcester State College indicated that the students at this school have very different lifestyles than students at other colleges in Worcester. Unlike the other focus groups, a large portion of the participants was commuting students. Despite the considerable differences between them and previous focus group participants, we found that some of their viewpoints were nearly identical to those of college students interviewed at Assumption, Clark, Holy Cross, and WPI.

The first topic discussed was how the participants spend their free time. Many of their answers were completely different than at other colleges. Since many of the participants were commuters, some common responses included family events and babysitting younger brothers and sisters. A couple of the participants who lived on-campus replied that they usually spend their free time on-campus. In addition to these answers, many places were mentioned that were also frequented by college students from different campuses.

The WSC students interviewed mentioned three main types of off-campus locations they frequented. These included movie theatres, shopping malls, and restaurants, bars or clubs. The theatres mentioned included Showcase Cinema North, West Boylston Cinema, and the cinema at the Solomon Pond Mall. The most popular of these three seemed to be Showcase Cinema North.

The major malls they mentioned visiting the most frequently included the Auburn Mall, the Worcester Common Outlets, the Greendale Mall, and the Solomon Pond Mall. Another stores they mentioned shopping at regularly was Tatnuck Bookseller, which is located on the same street as WSC. There was not one mall that most of them visited the most often. Like the students at Assumption and WPI, the WSC students visited the Worcester Common Fashion Outlets the least. They also stated that they were dissatisfied with the choice of stores at the Outlets, but they did not mention being dissatisfied with the prices such as the Assumption students did.

Other places the WSC students enjoyed going included Jillians, the Neon Moon, and the Palladium. Neon Moon is a country dance club which was not mentioned at any of the other colleges. A popular location was the Friendly's located near the WSC campus.

The WSC participants felt similar about downtown Worcester as other participants. They said the only attractions there for them were the Centrum Centre and the Fashion Outlets. Almost all of them had been to an event at the Centrum in the past year, but there felt that the venue did not have many events of interest for college students. The WSC participants felt that the general appearance of the area contributed to their dislike of visiting the downtown area.

Finding transportation did not seem to be an issue for the participants. Most of them had transportation readily available because they were commuters. Those who lived on-campus either had their own transportation or had a lot of friends who had cars. A few had used the intercampus shuttle many times, but public transportation was never or rarely used.

When asked about student discounts or special offers to college students, some of the participants were very knowledgeable while others knew of only a few. Many of the students had heard of the discounts through friends and family members.

When compared to students at other colleges in Worcester, all of the students at our focus group were very knowledgeable about the city of Worcester including how to get places and what the city has to offer. Despite this, they felt that businesses could do a better job informing them of special offers or events. Some of the students checked their e-mail regularly and thought it would be a good way for businesses to contact them, while others said that they never check their e-mail. Similarly, some of them thought a website of events, discounts, and special offers would be useful, but others did not think they would utilize such a website. However, the students were very interested in knowing about events on other campuses in Worcester, and even in having special college events for all students in the city.

The WSC participants differed greatly from students we surveyed previously. They were very knowledgeable of the city and its businesses. While they spent a lot of their free time with friends at places in Worcester, unlike other college students in the city they also indicated that they had many commitments at home that took a lot of their free time.

After conducting the WSC focus group, it seemed that the poor business/college student relationships that exist in Worcester were not as much of an issue for the students as it was at other schools. It seemed apparent that the students could be better marketed to, but they have different needs than at the other schools. Most of the participants already knew of the businesses and their location, but they were not aware of all the events, discounts, or special offers for college students. At other schools the students are not knowledgeable about many businesses or their locations. Once the survey has been implemented, the results should indicate how WSC should be marketed to compared to the other Worcester schools.

5. Conclusions and Recommendations

The relationship between college students and businesses in Worcester were analyzed using focus group interviews and personal interviews. Personal interviews with business owners allowed us to assess their current perceptions of the college student market in Worcester and then examine what they needed to know to successfully market to the students. The focus group interviews conducted at Assumption College, Clark University, College of the Holy Cross, Worcester Polytechnic Institute, and Worcester State College allowed us to examine how students felt about Worcester, its businesses, and the current marketing techniques being employed. A preliminary survey was written to be conducted at these colleges by a future IQP group. Upon completion, the results of this survey will provide the views of the current student population on these issues.

By conducting business interviews, we discovered what information about students is necessary for businesses to effectively market to students.

All of the businesses we interviewed were frustrated because they did not know how to effectively reach the college student market. Two reasons for this were established. The first was that they do not know enough useful information about the students. This caused the businesses to make generalized assumptions about their target population. The assumptions could be extremely invalid, possibly causing their marketing techniques to be inaccurate. The interviewees thought knowing how students prefer to spend their free time, their social interests, their means of transportations, would allow them to employ an appropriate marketing plan. Businesses also wished to learn about students' knowledge of available discounts, and their overall perceptions of the city.

The second problem encountered is that businesses do not know which advertising media are most effective. Knowing which newspapers students read the most, which radio and TV stations they listen to and watch most frequently, and how much time is spent on the Internet or checking email, would allow businesses to determine what media would be most effective.

Using the results of these business interviews, we developed directions for the focus groups which we later conducted at the five schools in our study (See Appendix B). The main focus group topics we discussed were those in which the interviewed businesses had shown interest. We sought answers to the following questions:

- How do students spend their free time?
- What modes of transportation do they use and how often?
- What is their knowledge of student discounts and offers?
- Which media would be most effective in reaching them?
- What are their overall perceptions of the city?

The results we found varied slightly among the schools, but there were many common themes.

In the focus groups we conducted, the students in general were very excited about the possible improvement of their relationship with businesses. The students wished to know more about the city and its businesses.

Many of the participants, especially the first-year students, reported having problems with transportation. Participants also had limited knowledge of the city and of how to get to places within it. Most subjects had very limited knowledge of discounts and offers available to them. If they had heard of any discounts, it was generally by word of mouth.

The students' opinions varied amongst campuses when asked about the most effective media for contacting them. Some thought e-mail was a great idea, however, others stated that

they automatically delete corporate e-mails. The Internet would also be a good way to advertise to some students, but there are other students who do not use the Internet or e-mail often or at all.

The overall perception of the city by participants in our focus group tended to be positive, but many felt that the city could be improved, especially downtown. The students felt that the city could be cleaned up so that the post-industrial appearance of Worcester changed to be more appealing.

Examining the focus group results, many ideas for improving the college student/business relationships emerged. One good idea may be to develop a weekly e-mail for students informing them about that week's offers, discounts, and special events in the city. Similarly, a web page with the same information would also be useful.

Once the paper survey has been implemented and analyzed, a more accurate, detailed, and complete solution to the problem can be formulated.

6. Appendices

Appendix A. Business Interview Questionnaire

- 1.) What are the current methods you use to market to college students in Worcester?
- 2.) What information could help you better market to the college students?
 - 2a.) What would you like to know about students that might help you to better market to them?
- 3.) Do you offer any special discounts or offers to college students?
 - 3a.) What methods do you currently use to make students aware of these discounts or offers?

Appendix B. Focus Group Directions

1. Hand out focus group participant packet upon arrival.

Contents of packet:

One copy of Confidentiality Disclaimer
Blank 'Name' Tag
One Copy of Topic Statement

2. Introduction of mediators and topics of discussion.

Hi, my name is _____, I am a (state year and major) from WPI. First, I would like to thank you for your willingness to participate in this focus group session. I, along with two project partners (introduce partners), am conducting a survey for Worcester polytechnic Institute concerning college students' perceptions of Worcester. The focus of tonight's discussion is what your opinions are regarding what Worcester has or does not have to offer college students. You have been invited here today/tonight because your opinions are important to us. The goal of our project is to gain a better understanding of Worcester's college population, so that in the future, businesses and organizations can develop a more successful relationship with the students themselves.

3. Self-Introduction of participants.

Before we continue, lets go around the room and introduce ourselves, you do not have to use your real name, but one we can refer to you as, and your major or year, etc.

4. Explanation and collection of the Confidentiality Disclaimer.

We would like each participant to be able to interact and speak freely. IN order to protect both the participants and the mediators we have a confidentiality disclaimer for everyone to sign. Again, this is to assure that all participants' remarks and statements will be kept completely confidential. This form is in the packet you should have received when you arrived. *(Make sure everyone has a packet and the READ the disclaimer)*

4a. Address concerns participants may have about the disclaimer or confidentiality.

Does anyone have any concerns or questions regarding the disclaimer?

**WE ARE HERE TO GET THEIR OPINIONS ON WHAT WORCESTER
HAS/NEEDS WITH REGARDS TO SOCIAL INTERESTS,
TRANSPORTATION, DISCOUNTS AND MEDIA**

4b. Collect disclaimers.

5. Begin question/discussion session.

5a. Determining how they spend their free time.

The first topic we would like to discuss is what you do with your free time; in the packet you received a statement:

It is Friday. You are finally done with your classes for the week, and you don't have to do any more work. The entire evening lay before you...what happens next?

5b. Social interests of college students.

For what reasons do you leave campus?
(Shopping? Entertainment? Food?)

Where and how often do you do these things?

Does downtown Worcester offer enough attractions?

If so, what about downtown presently interests you?
If not, what resources/attractions/programs should be introduced to the area in order to entice you?

5c. Transportation.

What means of transportation do you currently use to get to your destinations?

When making plans-is transportation a major or minor concern?

Do you use public transportation? Why or why not?
(College shuttles versus citywide bus line)

What do you like/what would you like to see changed about public transportation?

5d. Knowledge of Student Discounts/Offers.

**WE ARE HERE TO GET THEIR OPINIONS ON WHAT WORCESTER HAS/NEEDS
WITH REGARDS TO SOCIAL INTERESTS,
TRANSPORTATION, DISCOUNTS AND MEDIA**

Are you aware of any local businesses/organizations that presently offer a discount or special offer to college students?

How did you become aware of these offers?

Notify students of present discounts available.

5e. Media.

How could businesses/organizations best contact/advertise/promote job opportunities to you?

How do you hear about the events you attend?

What newspapers, radio/TV stations do you listen to/watch most frequently?

How much do you depend upon the Internet and e-mail for information?

5f. Concluding perceptions/opinions of Worcester.

Upon graduation, would you consider working and/or living in Worcester?
Why or why not?

Does anyone have any final comments to make on the topics we have discussed tonight?

6. Conclude interview session, thank participants.

We want to thank everyone for coming tonight. We truly appreciate your participation.

**WE ARE HERE TO GET THEIR OPINIONS ON WHAT WORCESTER HAS/NEEDS
WITH REGARDS TO SOCIAL INTERESTS,
TRANSPORTATION, DISCOUNTS AND MEDIA**

Appendix C. Confidentiality Disclaimer

Confidentiality Disclaimer

In signing this I understand, accept and agree to the following terms and conditions:

- 1.) The recording of this session will be used only for transcription purposes, and viewed by no one other than the mediators.
- 2.) Both participants and mediators will regard all information, opinions, statements and other remarks included in this focus group session as confidential.
- 3.) Participation in the focus group is entirely voluntary. This pertains to overall participation, as well as involvement during any and all aspects, questions and subjects covered in the survey session.

Name in full (printed)

Name in full (signature)

Date

Signature of Mediators

These measures have been taken solely to protect all participants. It is of utmost importance that all members of the focus group feel comfortable and safe sharing individual, honest opinions and thoughts.

Please keep this bottom section as a copy for yourself

Confidentiality Disclaimer

In signing this I understand, accept and agree to the following terms and conditions:

- *The recording of this session will be used only for transcription purposes, and viewed by no one other than the mediators.
- *Both participants and mediators will regard all information, opinions, statements and other remarks included in this focus group session as confidential.
- *Participation in the focus group is entirely voluntary. This pertains to overall participation, as well as involvement during any and all aspects, questions and subjects covered in the survey session.

Date:

These measures have been taken solely to protect all participants. It is of utmost importance that all members of the focus group feel comfortable and safe sharing individual, honest opinions and thoughts.

Appendix D. Topic Statement

It is Friday. You are finally done your classes for the week, and you don't have to do any more work. The entire evening lay before you...what happens next?

Appendix E. The Proposed Survey

Q1. How satisfied are you with your choice to attend this college? (Please circle number of your answer.)

1. VERY SATISFIED
2. SOMEWHAT SATISFIED
3. SOMEWHAT DISSATISFIED
4. VERY DISSATISFIED
5. NO ANSWER

Q2. How often do you find yourself heading off of campus within a month's time? (Circle one number.)

1. NEVER
2. 1 - 3 TIMES
3. 4 - 9 TIMES
4. 10 OR MORE TIMES
5. NO ANSWER

Q3. Indicate on average, how often you use the following modes of transportation in a month's time:
(Using the following scale, circle the letter of one choice in each row.)

N --- NEVER
 R --- RARELY
 M --- MONTHLY
 W --- WEEKLY
 D --- DAILY
 NA--- NO ANSWER

Car.....	N	R	M	W	D	NA
Walk.....	N	R	M	W	D	NA
Bike.....	N	R	M	W	D	NA
Taxi.....	N	R	M	W	D	NA
WRTA College Shuttle Van.....	N	R	M	W	D	NA
WRTA Citywide Bus.....	N	R	M	W	D	NA

Q3a. If you answered, Never, to either of the WRTA transit services, for which reason(s)?
(Please circle the number of ALL that apply.)

1. OWN TRANSPORTATION
2. BUS AVAILABILTY/SCHEDULE
3. TIME COST
4. MONETARY COST
5. NONE OF THESE

Q4. How often does your access to transportation limit where you go? (Circle one number.)

1. ALWAYS
2. FAIRLY OFTEN
3. SOMETIMES
4. ALMOST NEVER
5. NEVER

Q5. Indicate how often you do each of the following in a month's time:
 (Using the following scale, circle the letter of one choice in each row.)

- N --- NEVER
- R --- RARELY
- M --- MONTHLY
- W --- WEEKLY
- D --- DAILY or more
- NA --- NO ANSWER

Go to a Grocery Store.....	N	R	M	W	D	NA
Eat at a Pizzeria.....	N	R	M	W	D	NA
Order at a Fast-Food Restaurant.....	N	R	M	W	D	NA
Eat at a Dine-In Restaurant.....	N	R	M	W	D	NA
Have Food Delivered to You.....	N	R	M	W	D	NA
Go to a Shopping Mall.....	N	R	M	W	D	NA
Go to a Store (other than grocery)....	N	R	M	W	D	NA
Visit a Movie Cinema.....	N	R	M	W	D	NA
Go to Bars and/or Clubs.....	N	R	M	W	D	NA
Attend Centrum Events.....	N	R	M	W	D	NA

Q6. On average, about how much money do you spend each month for each of the following?
 (Please circle one choice in each row)

	\$0-5	\$6-20	\$21-30	\$31-45	\$46-60	\$61 or more
Taxis.....	A	B	C	D	E	F
Public Transit Buses.....	A	B	C	D	E	F
Delivered Food.....	A	B	C	D	E	F
Take-out/Fast Food..... (other than delivery)	A	B	C	D	E	F
Restaurant Dining..... (excluding Bars/Clubs)	A	B	C	D	E	F
Bars/Clubs.....	A	B	C	D	E	F
Groceries.....	A	B	C	D	E	F
Shopping (other than grocery).....	A	B	C	D	E	F
Cinema Movies.....	A	B	C	D	E	F
Renting Videos.....	A	B	C	D	E	F
Misc. Entertainment/Social Events... A	B	C	D	E	F	

Q7. Do you ever go to downtown Worcester – Main Street and surrounding area? (Circle one number.)

1. YES
2. NO
3. NO ANSWER

Q7a. If Yes, for what reasons? (Please circle the number of ALL that apply)

1. WORCESTER FASHION OUTLETS
2. CENTRUM CONCERTS
3. STORES
4. FOOTHILLS THEATRE
5. RESTAURANTS
6. CLUBS
7. ICECATS GAME
8. BARS
9. NONE OF THESE

Q7b. If No, for what reasons? (Please circle the number of ALL that apply)

1. NOT ENOUGH ATTRACTIONS
2. TRANSPORTATION OR PARKING
3. SAFETY
4. STORE HOURS
5. OTHER

Q8. Would you like to see any changes made to the downtown area? (Circle one number.)

1. YES
2. NO
3. NO ANSWER

Q8a. If Yes, please select which changes: (Please circle the number of ALL that apply)

1. MORE RESTAURANTS
2. OTHER CENTRUM EVENTS
3. SAFER ENVIRONMENT
4. LATER STORE HOURS
5. OTHER

Q9. How do you hear about events or happenings that you attend? (Please circle the number of ALL that apply)

1. WORD-OF-MOUTH
2. CAMPUS BULLETIN BOARDS
3. SCHOOL NEWSPAPER
4. OTHER NEWSPAPER
5. CAMPUS TV/RADIO
6. NON-CAMPUS TV/RADIO
7. INTERNET
8. E-MAIL
9. NONE OF THESE

Q10. Some campuses have ways for students to find out about events happening on-campus, at other Worcester college campuses, as well as other places in Worcester. Rate the following places for advertising such events to the students on your campus using the scale below:

- NE --- NOT EFFECTIVE
- SE --- SOMEWHAT EFFECTIVE
- U --- UNSURE
- VE --- VERY EFFECTIVE
- ME --- MOST EFFECTIVE
- NA --- NO ANSWER

Please choose one choice per row:

Bulletin Board in Mail Room.....	NE	SE	U	VE	ME	NA
Bulletin Board at other locations.....	NE	SE	U	VE	ME	NA
Campus Radio Station.....	NE	SE	U	VE	ME	NA
Campus Television Station.....	NE	SE	U	VE	ME	NA
Internet Link to School Homepage.....	NE	SE	U	VE	ME	NA
E-mail Message.....	NE	SE	U	VE	ME	NA
Mailbox Notice.....	NE	SE	U	VE	ME	NA

Q11. If your campus implemented a way to notify you of upcoming events would you utilize it on a regular basis? (Circle one number.)

1. YES
2. NO
3. NO ANSWER

Q12. If there were intercampus events held exclusively for college students in Worcester how likely would you be to attend? (Circle one number.)

1. HIGHLY LIKELY
2. FAIRLY LIKELY
3. NEITHER LIKELY NOR UNLIKELY
4. FAIRLY UNLIKELY
5. HIGHLY UNLIKELY

Q13. Are you aware of any local businesses/organizations that offer students discounts/special offers? (Circle one number.)

1. YES
2. NO
3. NO ANSWER

Q13a. If YES, does your knowledge of these discounts or offers influence where you spend your money? (Circle one number.)

1. ALWAYS
2. FAIRLY OFTEN
3. SOMETIMES
4. ALMOST NEVER
5. NEVER

Q13b. How did you hear about these offers? (Circle one number.)

1. WORD-OF-MOUTH
2. CAMPUS BULLETIN BOARDS
3. SCHOOL NEWSPAPER
4. OTHER NEWSPAPER
5. CAMPUS TV/RADIO
6. NON-CAMPUS TV/RADIO
7. INTERNET
8. E-MAIL
9. NONE OF THESE

Q14. Rate the following methods for businesses to contact you about discounts, offers, or job postings using the following scale: (Using the following scale, circle one choice per row)

- NE --- NOT EFFECTIVE
- SE --- SOMEWHAT EFFECTIVE
- U --- UNSURE
- VE --- VERY EFFECTIVE
- ME --- MOST EFFECTIVE
- NA --- NO ANSWER

E-mail.....	NE	SE	U	VE	ME	NA
Postal Mail.....	NE	SE	U	VE	ME	NA
Internet.....	NE	SE	U	VE	ME	NA
School Newspaper.....	NE	SE	U	VE	ME	NA
Campus TV Station.....	NE	SE	U	VE	ME	NA
Campus Bulletin Boards.....	NE	SE	U	VE	ME	NA

Q15. How often do you do each of the following in a week's time:

(Using the following scale, circle one choice in each row.)

- N --- NEVER
- R --- RARELY
- S --- SOMETIMES
- O --- OFTEN
- V --- VERY REGULARLY
- NA --- NO ANSWER

Watch Television.....	N	R	S	O	V	NA
Listen to the Radio.....	N	R	S	O	V	NA
Listen/Watch Campus Stations.....	N	R	S	O	V	NA
Read Newspaper.....	N	R	S	O	V	NA
Read Campus Newspaper.....	N	R	S	O	V	NA
Access the Internet.....	N	R	S	O	V	NA
Access your E-mail.....	N	R	S	O	V	NA

Q16. Listed below are some ideas suggested for informing students about events and/or discounts within the city. Please indicate which methods you believe would have NO usefulness, LOW usefulness, MEDIUM usefulness, or HIGH usefulness.

<u>Possible methods</u>	<u>How much usefulness, if any, would each idea have?</u> (Please circle one choice per row)				
1. A weekly updated e-mail notification.....	NO	LOW	MEDIUM	HIGH	NA
2. A weekly updated paper mailing notification.....	NO	LOW	MEDIUM	HIGH	NA
3. A catalog distributed per semester.....	NO	LOW	MEDIUM	HIGH	NA
4. A map of city locations distributed annually.....	NO	LOW	MEDIUM	HIGH	NA

Q17. Do you think the city of Worcester has everything that you need as a college student?
(Circle one number.)

1. YES
2. NO
3. NO ANSWER

Q17a. If NO, do you think changes could be made to the city to make it more accommodating to college students? (Circle one number.)

1. YES
2. NO
3. NO ANSWER

Q18. Below is a list of suggested possible improvements for the city of Worcester. Please indicate whether you feel that each change should be given NO priority, LOW priority, MEDIUM priority, or HIGH priority.

<u>Possible Changes</u>	<u>How much priority, if any should each change have?</u> (Please circle one choice per row)				
1. Different Stores at Malls.....	NO	LOW	MEDIUM	HIGH	NA
2. More 18+ clubs.....	NO	LOW	MEDIUM	HIGH	NA
3. Later Hours for Stores/Restaurants.....	NO	LOW	MEDIUM	HIGH	NA
4. Better Public Transportation.....	NO	LOW	MEDIUM	HIGH	NA
5. Closer/Less-Expensive Theaters.....	NO	LOW	MEDIUM	HIGH	NA
6. A Garden or Park (free to public).....	NO	LOW	MEDIUM	HIGH	NA
7. City-wide External Makeover/Renovation...	NO	LOW	MEDIUM	HIGH	NA

Of the possible changes listed above, which do you feel are most important for college students?
(Please write number of change from above list in appropriate space below.)

_____Most Important _____Second Most Important _____Third Most Important

Q19. What is your student class year? (Circle one number.)

1. FIRST-YEAR
2. SECOND-YEAR
3. THIRD-YEAR
4. FOURTH-YEAR
5. NOT CERTAIN/NONE OF THESE

Q20. Where do you reside during the school year? (Circle one number.)

1. ON-CAMPUS HOUSING
2. OFF-CAMPUS HOUSING IN WORCESTER
3. OFF-CAMPUS HOUSING OUTSIDE OF WORCESTER

Q21. Do you have a meal-plan at this campus? (Circle one number.)

1. YES
2. NO
3. NOT SURE/NO ANSWER

Q22. How closely did you live to Worcester before attending college here? (Circle one number.)

1. WITHIN THE CITY
2. IN THE STATE
3. IN NEW ENGLAND
4. IN THE UNITED STATES
5. OUTSIDE THE UNITED STATES

Q23. Please indicate your gender: (Circle one number.)

1. MALE
2. FEMALE
3. NO ANSWER

7. Bibliography

- Abramoff, G., Abramoff, L., & Lindblad, A. (1995). Favorite places of Worcester County. Worcester, MA: Databooks.
- Astin, A. W. (1968). The college environment. Washington, D.C.: The American Council on Education.
- Atwood, W. W. (1937). The first fifty years: An administrative report. Worcester, MA: Clark University.
- Behrman, S. N. (1954). The Worcester account. Worcester, MA: Tatnuck Bookseller Press.
- Blankenship, A. B. (1977). Professional Telephone Surveys. New York: McGraw-Hill.
- Blankenship, A. B., Breen, G.E., & Duttka, A. (1998). State of the art marketing research (2nd ed.). Chicago: NTC Business Books
- Bender, L. W. (1985). Students in urban settings: Achieving the baccalaureate degree (ASHE – Eric Higher Education Report. No. 6). Washington D.C.: Association for the Study of Higher Education.
- Bennet, M. E. (1941). College and life. New York: McGraw-Hill.
- Berg, B.L. (1998). Qualitative research methods for the social sciences. (3rd ed.). Boston: Allyn and Bacon.
- Bloom, B.L. (1975). Psychological stress in the campus community. (Vol. 3). New York: Behavioral Publications.
- Breen, G. E. (1977). Do it yourself marketing research. New York: McGraw-Hill.
- Burn, E. (1996). Back to school: the benefits of selling to the college market. Direct Marketing, February, 30-33.
- Butz, O. (Ed.). (1967). To make a difference. New York: Harper & Row.
- Carnegie Foundation for the Advancement of Teaching. (1990). Campus life: In search for the community. Princeton, NJ.: Author.
- Carr, I. & Gorton, K. (1983). Low cost marketing research: A guide for small businesses. New York: John Wiley & Sons.
- CJI Research Corporation. (1999). A transportation survey of students at seven colleges of the Colleges of Worcester Consortium. Unpublished survey.

- Clark, C.H., Spendlove, D. C., & Whitman, N. A. (1984). Student stress: effects and solutions (ASHE-ERIC Higher Education Research Report. No. 2). Washington, D.C.: Association for the Study of Higher Education.
- Connors, R., & Lunsford, A. (1999). The new St. Martin's handbook. Boston: Bedford/St. Martin's.
- Dillman, D. A. (1978). Mail and telephone surveys: The total design method. New York: John Wiley & Sons.
- Dillman, D. A. & Salant, P. (1994). How to conduct your own survey. New York: John Wiley & Sons.
- Dunn, W. (1992). Hanging out with American youth. American Demographics, February, 1992, 24-35.
- Erskine, M. A. (1981). Heart of the commonwealth: Worcester. Woodland Hills, CA: Windsor Publications.
- Faunce, W. A. (1968). Problems of an industrial society. New York: McGraw-Hill.
- Fink, A. (1995). How to analyze survey data. Thousand Oaks, CA: Sage Publications.
- Ghosh, K. (1996). A foundation for economic success. Unpublished survey, Worcester, MA: Colleges of Worcester Consortium, and Bank Boston.
- Grattan, W. J. & Meagher, W. J. (1966). The spires of Fenwick: A history of the College of the Holy Cross 1843-1963. New York: Vantage Press.
- Groves, R. M. (1989). Survey error and survey cost. New York: John Wiley & Sons.
- Kronovet, E. (Ed.). (1967). In pursuit of awareness. New York: Appleton-Century-Crofts.
- Kuzniewski, A.J. (1999). Thy honored name: A history of the College of the Holy Cross, 1843 – 1994. Washington D.C.: The Catholic University of America Press.
- League of Women Voters. (1988). All about Worcester. Worcester, MA: Commonwealth Press.
- Lemeshow, S., & Levy, P. S. (1991). Sampling of populations: Methods and applications. (2nd ed.). New York: John Wiley & Sons.
- Levine, A. (1980). When dreams and heroes died. San Francisco: Jossey-Bass.
- Marion, R. J. (1995). An historical look at Assumption College: 1904-1964. Worcester, MA: Assumption College.

- Marx, W. (1995). Marketing 101: smart marketers are now seeing college students with dollar signs in their eyes. Management Review, September, 40-43.
- Mohr, E. B. (1995). College students as current consumers. Direct Marketing, January, 16-18
- Nash, G. (1973). The university and the city. New York: McGraw-Hill.
- Southwick, A. B. (1998). 150 years of Worcester: 1848-1998. Worcester, MA: Chandler House Press.
- Speer, T. L. (1998). College come-ons American Demographics, March, 1998, 41-45.
- Strange, C. C. (1993). Developmental impacts of campus living environments. In Delworth, U. (Ed.), Student housing and residential life (pp. 134-166). San Francisco: Jossey-Bass.
- Taylor, H. F. (1937). Seventy years of the Worcester Polytechnic Institute. Worcester, MA: The Davis Press
- Tulloch, D. (1914). Worcester, city of prosperity. Worcester, MA: The Commonwealth Press.
- Walsh, D. (1994). The big giveaway. Urban Economics, February, 1994, 31-32.