FRANKLIN PIERCE COLLEGE:

A MARKETING RESEARCH STUDY

TO DETERMINE STUDENT PREFERENCES IN RELATION TO A SHUTTLE SERVICE FROM THE RINDGE CAMPUS TO KEENE, NH

Prepared for

The Campus Safety Department at Franklin Pierce College

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Marketing Research Course

Franklin Pierce College, Rindge NH

December 8, 2003
December 8, 2003

Bill Sweet
20 College Rd
Campus Safety Office
Rindge, NH 03461

Dear Mr. Sweet.

The Shuttle Service Research Team, from the Franklin Pierce College Marketing Research class instructed by Professor Jason Little, recently conducted research on how well a shuttle service, from the Rindge Campus to Keene, NH, would be accepted by the students on the Rindge Campus. The results are contained in the report entitled, “Franklin Pierce College: A Marketing Research Study to Determine Student Preferences in Relation to A Shuttle Service from the Rindge Campus to Keene, NH.” The report is based on surveys from 96 Franklin Pierce College Students on the Rindge Campus.

The complete methodology is described in the report. Standard marketing research practices were used throughout the research project. You will find that the results of the report provide the information necessary to achieve the research objectives the team set out for this project. These results reflect the opinions and voice of Franklin Pierce College students, and the research team hopes that you will be able to use the results to make the best decision regarding a shuttle service from the Rindge Campus to Keene, NH.

Should you need further assistance please do not hesitate to contact the research team. The team can be reached through Professor Jason Little in the Business Division. The team enjoyed conducting this research and look forward to seeing where you take it.

Sincerely,

Katy Wilcock            Danielle Boxer            Emily Bergeron

Jason Bourque          Seven Clark
## Contents

<table>
<thead>
<tr>
<th>Section Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Executive Summary</td>
<td>1</td>
</tr>
<tr>
<td>Introduction</td>
<td>1</td>
</tr>
<tr>
<td>Literature Review</td>
<td>2</td>
</tr>
<tr>
<td>Shuttle Services</td>
<td>2</td>
</tr>
<tr>
<td>Campus Shuttle Services Around the Country’s Colleges</td>
<td>4</td>
</tr>
<tr>
<td>Van Safety</td>
<td>8</td>
</tr>
<tr>
<td>Drunk Driving</td>
<td>10</td>
</tr>
<tr>
<td>Franklin Pierce College Transportation</td>
<td>11</td>
</tr>
<tr>
<td>Problem Statement</td>
<td>13</td>
</tr>
<tr>
<td>Research Objectives</td>
<td>13</td>
</tr>
<tr>
<td>Methodology</td>
<td>13</td>
</tr>
<tr>
<td>Development of Survey</td>
<td>13</td>
</tr>
<tr>
<td>Population</td>
<td>14</td>
</tr>
<tr>
<td>Data Collection Method</td>
<td>14</td>
</tr>
<tr>
<td>Data Analysis Procedure</td>
<td>15</td>
</tr>
<tr>
<td>Assumptions</td>
<td>16</td>
</tr>
<tr>
<td>Results</td>
<td>16</td>
</tr>
<tr>
<td>Limitations</td>
<td>20</td>
</tr>
<tr>
<td>Discussion</td>
<td>20</td>
</tr>
<tr>
<td>Conclusions and Recommendations</td>
<td>21</td>
</tr>
<tr>
<td>References</td>
<td>23</td>
</tr>
<tr>
<td>Appendixes</td>
<td>25</td>
</tr>
<tr>
<td>A</td>
<td>25</td>
</tr>
<tr>
<td>B</td>
<td>27</td>
</tr>
<tr>
<td>C</td>
<td>27</td>
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<td>E</td>
<td>29</td>
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<td>F</td>
<td>30</td>
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<td>G</td>
<td>31</td>
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Executive Summary

The general subject of this research was to discover if a shuttle service to and from Keene, NH would be beneficial to Franklin Pierce students and their registered guests. The research covers the overall attitudes of the students, and considers the payments, locations and times a shuttle service would best support the college population. In order to gather data, the type of methodology used was a survey questionnaire. It was determined that 54.2% of the respondents agree or strongly agree that there is a need for a shuttle bus. It was also determined that 41% of the respondents preferred to pay with cash every ride they took, and a large percentage (38%) would pay between one and two dollars per ride. Downtown Keene was the most popular place respondents would like to go, and Friday and Saturday nights were the most popular of the days respondents would use the shuttle as 60.4 % agreed. The majority would like the shuttle start at 4 p.m. and end at 1a.m. We suggest that Campus Safety should implement a shuttle service that runs on an hourly loop, and should consider the above criteria.

Introduction

Franklin Pierce College was founded in 1962, by Frank S. Dipietro. Franklin Pierce is a four-year, coeducation, liberal arts college. The main campus is located on 1,000 wooded acres in Rindge, New Hampshire. The College also operates six satellite schools located in Keene, Concord, Nashua, Lebanon, Portsmouth, and Salem (“FPC at-a-glance,” 2003). Franklin Pierce College is very committed to developing the character of its students. “That which must set a Franklin Pierce education apart from others is that we demand that our students make contributions far larger than they could have hoped when they arrived” (Franklin Pierce Mission Statement, 2003-2004 catalogue). The
College considers it to be an “academic home” and constantly seeks to develop and stretch the development of intellect and character.

The student population is small, but diverse. Of the 1,386 students thirty-one states and twenty-three countries are represented. The Rindge Campus offers a number of special interest and academic clubs such as: Students In Free Enterprise (SIFE), Campus Activities Board, Student Senate, The Gay-Straight Alliance, and the Pierce Arrow Newspaper. There are also a variety of recreational activities offered like, the Outing Club, Intramural Sports, and van trips to malls, sporting events, and amusement parks.

One service not offered by Franklin Pierce is a regular shuttle bus to and from the local city of Keene. Keene is only a half hour from the Rindge campus and it offers a variety of recreational choices. There are at least four major chain restaurants and dozens of smaller restaurants, a movie cinema, four major shopping plazas, and a number of cultural activities. As a result of this lack of transportation, a marketing research team was developed to determine the interest among Franklin Pierce students at the Rindge Campus, in a shuttle service.

Literature Review

_Shuttle Services_

When college students have easy access to buses and other forms of transportation, they use them. College administrators and public transportation officials often find themselves working together to come up with ideas (Earls, 1997). One idea that often arises is the implantation of some sort of Shuttle service. Shuttle services include a variety of transportation services that use small buses or vans to provide public mobility (“Shuttle Services,” 2003). There are a number of different types of shuttle
services available, depending on the need of the area. For example, circulating shuttles take passengers short distances along busy passageways like business districts, college campuses, airports, or recreational areas. This type of service is often needed during special events or as a solution to parking overflow. These shuttles are often free, or require a very small fee ("Shuttle Services," 2003). Another type of shuttle service is the Demand-Response transit. These include, “various types of flexible route transit service using small buses, vans or shared taxis. These shuttles are more appropriate than fixed transit service for some applications, such as off-peak service, or service in lower-density areas” ("Shuttle Services," 2003).

Campus Transport Management (CTM) programs are set up by campus administration to improve campus transportation, and limit the number of stops at campuses. “It is often more cost effective than other solutions to local traffic and parking problems, and students and employees often value having improved transportation choices” ("Shuttle Services," section 3). There are numerous possibilities for funding including, transit budgets, local improvement districts, grants and revenues.

The U-PASS is one example of CTM put to work. It was first implemented at the University of Washington in 1991, but since then has expanded to include a number of universities and colleges throughout the country. “The program offers a flexible, broad package of high occupancy vehicle (HOV) options through a U-PASS sticker on university identification cards. Available at a greatly discounted price, the U-PASS has been a huge success in decreasing single-occupancy vehicle (SOV) trips” (Williams & Petrait, K, 1993). Table 1 shows the success the U-PASS has had at increasing the use of
various forms of public transportation. For example at Ohio State ridership has increased by 300%.

Table 1 UPASS Program Summary (Brown, Hess and Shoup, 1998)

<table>
<thead>
<tr>
<th>University</th>
<th>Year Began</th>
<th>Who May Ride Free</th>
<th>Eligible Riders</th>
<th>Annual Program Cost</th>
<th>Annual Rides</th>
<th>Cost Per Eligible Person</th>
<th>Rides Per Eligible Person</th>
<th>Average Cost per Ride</th>
<th>Ridership Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>University of California, San Diego</td>
<td>1969</td>
<td>Students, faculty, staff, emeritus</td>
<td>35,200</td>
<td>$177,700</td>
<td>296,600</td>
<td>$5</td>
<td>8</td>
<td>$0.60</td>
<td></td>
</tr>
<tr>
<td>University of Georgia at Athens</td>
<td>1977</td>
<td>Students</td>
<td>30,000</td>
<td>$275,000</td>
<td>600,000</td>
<td>$9</td>
<td>20</td>
<td>$0.46</td>
<td></td>
</tr>
<tr>
<td>Cal Poly State University, San Luis Obispo</td>
<td>1985</td>
<td>Students, faculty, staff, emeritus</td>
<td>17,500</td>
<td>$169,000</td>
<td>531,700</td>
<td>$10</td>
<td>30</td>
<td>$0.32</td>
<td></td>
</tr>
<tr>
<td>Appalachian State University, NC</td>
<td>1980</td>
<td>Students, faculty, staff</td>
<td>13,200</td>
<td>$251,000</td>
<td>361,800</td>
<td>$19</td>
<td>27</td>
<td>$0.69</td>
<td></td>
</tr>
<tr>
<td>University of Pittsburgh, PA</td>
<td>1995</td>
<td>Students, faculty, staff</td>
<td>31,200</td>
<td>$650,000</td>
<td>1,536,900</td>
<td>$21</td>
<td>49</td>
<td>$0.42</td>
<td>60%</td>
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<tr>
<td>University of California, Santa Barbara</td>
<td>1986</td>
<td>Students</td>
<td>17,400</td>
<td>$400,200</td>
<td>584,800</td>
<td>$23</td>
<td>34</td>
<td>$0.68</td>
<td>6%</td>
</tr>
<tr>
<td>Santa Barbara City College, CA</td>
<td>1995</td>
<td>Students</td>
<td>12,000</td>
<td>$277,000</td>
<td>525,500</td>
<td>$23</td>
<td>44</td>
<td>$0.53</td>
<td>36%</td>
</tr>
<tr>
<td>University of Massachusetts at Amherst</td>
<td>1969</td>
<td>Students, faculty, staff</td>
<td>39,000</td>
<td>$972,300</td>
<td>807,500</td>
<td>$25</td>
<td>21</td>
<td>$1.20</td>
<td></td>
</tr>
<tr>
<td>Ohio State University</td>
<td>1997</td>
<td>Students</td>
<td>48,300</td>
<td>$1,400,000</td>
<td>$29</td>
<td></td>
<td></td>
<td>300%</td>
<td></td>
</tr>
<tr>
<td>University of Wisconsin at Madison</td>
<td>1996</td>
<td>Students</td>
<td>39,000</td>
<td>$1,200,000</td>
<td>1,600,000</td>
<td>$31</td>
<td>41</td>
<td>$0.75</td>
<td></td>
</tr>
<tr>
<td>Virginia Polytechnic Institute and State University</td>
<td>1983</td>
<td>Students, faculty, staff</td>
<td>32,000</td>
<td>$1,100,000</td>
<td>1,400,000</td>
<td>$34</td>
<td>44</td>
<td>$0.79</td>
<td></td>
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<tr>
<td>University of Colorado at Boulder</td>
<td>1991</td>
<td>Students, faculty, staff</td>
<td>24,500</td>
<td>$1,000,000</td>
<td>1,500,000</td>
<td>$41</td>
<td>61</td>
<td>$0.67</td>
<td>400%</td>
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<tr>
<td>AVERAGES</td>
<td></td>
<td></td>
<td></td>
<td>$32</td>
<td>56</td>
<td></td>
<td></td>
<td>$0.57</td>
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This table summarizes various campus UPass programs in North America.

Campus Shuttle Services around the Country’s Colleges

Campuses around the country rely on different modes and ways of transporting their students from here to there. Whether it is a large campus and the students are taken from class to class, or a campus that is far from everything and need to offer students a way to get places without having to deal with finding a ride themselves, parking, or relying on others, among other things.
Each college however, has their own way of handling shuttle and transportation service for their students. For example, Keene State College, located in Keene, New Hampshire uses a City Express Bus System that provides services on and off campus to Keene State students (Keene State College website, 2003). This service is free of charge for all students who can show a valid student identification card when getting on the bus. It also offers a pick up service for students who park in the Winchester Street Lot and need transportation from there to campus. Students have the choice of taking a shuttle that will take them either around campus or downtown to do errands or for fun. The City Express offers separate campus shuttle and city bus routes. The hours are Monday through Saturday from 6:00 in the morning until about 7:30 at night, Sundays run from 4:00 in the afternoon until midnight. Students at Keene State have other options as well, like the City Express bus along with the City Express trolley.

Students at The University of New Hampshire, located in Durham, New Hampshire, use Wildcat Transit Routes. This service offers campus connector routes as well as routes throughout the town (University of New Hampshire, 2003). This service is offered to the public and costs $1 to the public and is free of charge for students with valid identification cards. Offering students a way to get places that is cheap and easy is very helpful not only to the students but to parents who do not always have to worry that their kids will have a way to get somewhere or that they are getting rides from people who are not responsible. For example in Bloomsburg, Pennsylvania, Bloomsburg University students in the Community Government Association have recently started their own shuttle service to be offered to their students (Kendrom, 2003). “Student leaders say that it is meant to keep
those out late at night safe” (Kendrom, 2003, p. 20). Meaning, whether they are at a bar partying or at a friend’s apartment, they will have a safe and reliable way to get back to campus. This idea was prompted for more than one reason, it began when last year an intoxicated student was killed when hit by a car while walking across the road on his way back to campus. Another reason was that students started complaining that there were not many safe options for them when they wanted to get downtown after dark (Kendrom, 2003).

Beginning this school year the Community Government Association has chartered two buses to drive a four-mile loop between the hours of 10:30 p.m. and 2:30 a.m. This service is free of charge and the students do not need to show any identification, University spokesperson Jim Hollister explains that this is because “a lot of students have guests in town, and we can’t very well tell them they can’t ride” (Kendrom, 2003, p. 21).

The bus drivers have the final say in who gets on the bus, and Hollister says that bus drivers can contact the university police immediately if they need to. As far as problems concerning intoxicated students, there have been no complaints so far but bus drivers have also been told that if they pick up a student and feel that it is necessary then can take them directly to the emergency room. However, Kendra Branchick, the school’s student trustee explains that although there are almost 600 students at the school that are of-age to drink, they don’t always make the right decision, she has heard many of them say things like, “stay kind of sober tonight, and you can drive us home” (Kendrom, 2003). This is where the bus comes in, she also points out that the bus is not just for drunk students, but for all students since they live different hours than most people. If the school decides to permanently use the buses, which is already drawing 200 students
a weekend, it could cost them about $21,000 a year, which seems like a lot, but Branchick also points out “that the shuttle could be an economic benefit to the downtown.” (Kendrom, 2003)

At the University of New Hampshire, college students are the ones who run and drive the shuttle service. They enjoy it because they are getting paid for it, they get to “people watch” all day, they can easily form their schedule around their classes, and they find interesting things on the buses (Dubreuil, 1998). To become a driver they have to fill out an application followed by an interview, then they have to obtain a commercial driver’s license, which requires three tests, that cost $52. They also must receive training from another employee and take a defensive driving class (Dubreuil, 1998). This seems like a lot but many students don’t mind because they are paid for the training and the benefits of the job outweigh going through the training.

In California at the University of California at Davis, many students are the transportation drivers there as well. This area uses Unitrans, which is owned by the university’s student government association, but is also used as the public transportation provider for the city (Biemiller, 2000). Unitrans, which was started in 1968, is said to be the biggest student-run bus service in the United States. This year there are 146 student drivers who have many other responsibilities besides driving the buses. They also plan new routes and wash buses (Biemiller, 2000). Other students such as Devin J. Braun, are in charge of specialized transportation services, like the Tipsy Taxi service. This service brings students to and from parties for only $1 Thursday through Saturday (Biemiller, 2000). There are also older adult employees who take care of the maintenance, safety, and long-term planning with the help of representatives of the local city government.
During the school semester the Unitrans carry about 16,000 to 18,000 riders on an average weekday (Biemiller, 2000). James H. McElroy, who began working as a student in the 1970’s and is now the general manager, says that 85% of the trips are taken by students and that they pay a mandatory fee each semester of $24.50, which allows them to ride the buses by just showing ID. The bus fare for non-students is 50 cents (Biemiller, 2000).

Overall, campus bus service and student run transportation services are very successful. They are beneficial for both town community and student community; they allow students with few transportation options to get from here to there very easily. More importantly, many times these services are not only offering a ride to students to get them from one place to another, but are offering an option to students where they can choose safety and reliability instead of the very dangerous risks of drinking and driving.

Van Safety

According to the federal figures, large vans accounted for 2.5 percent of all vehicles involved in fatal crashes in 1998, the latest year for which data are available. There is no question that larger buses are safer than vans, but the question is why. First off, vans are usually driven by coaches of athletic teams, or by students who drive for a little bit of spending money on the side. Large buses are typically driven by professionals, and the rule of thumb is that large vehicles are safer than smaller ones (Wildorf, 2000).

In general, colleges are responsible for setting their own standards on matters like how much training is necessary for van drivers. This includes anyone from students, to coaches and staff members as well. They are also responsible for determining the maximum trip a van may go. But who exactly is making these decisions, and how strong
is their opinions in the matter? In 1998, there were five crashes reported within six weeks. These five crashes left five people dead, and thirty-eight others injured (Wildorf, 2000). The National Highway Traffic Safety Administration issued the most recent advisory in April 2002. It reaffirmed a warning the federal agency made a year earlier that the risk of a rollover crash increases greatly when ten or more people ride in one of these vehicles. The increased risk occurs because the passenger weight raises the van’s center of gravity and shifts it to the rear, which gives the van less resistance to rollover.

Dr. Jeffrey Runge, who heads the federal traffic safety agency, said its research indicates that the main causes of the crashes were inexperienced drivers who didn’t understand the vans unique handling characteristics, and the failure of passengers to wear seat belts. Researchers believe there are some ways to correct these imperfections. Some say automakers could install two additional rear wheels to reinforce the vans body and roof. Other researchers have concluded that the best way to deal with the problem is to remove the rear seat. This step would help ensure that passengers would be restricted to ten people and that weight would be distributed in front of the rear axle (Brotherhood Mutual, 2003).

A rollover crash is a complex event, heavily influenced by driver and road characteristics as well as the design of the vehicle. In studies of single-vehicle crashes, NHTSA has found that more than 90 percent of rollovers occur after a driver has lost control of the vehicle and has run off the road. Three major situations can lead to a rollover in a 15-passenger van. One, the van goes off a rural road. If this occurs, the van is likely to overturn when it strikes a ditch or embankment or when it is tripped by an object or runs onto soft soil. Two, the driver is fatigued or driving too fast for conditions.
A tired driver can doze off and lose control. The driver can also lose control when
traveling at a high speed causing the van to slide sideways off the road. The grassy or dirt
medians that line highways can often cause the van to overturn when the tires dig into the
dirt. And three, the driver overcorrects the steering as a panic reaction to an emergency or
to a wheel dropping off the pavement. Especially at freeway speeds, this situation can
cause the driver to lose control, resulting in the van sliding sideways and rolling over
(NHTS, 2000).

The Over the past decade, 80 percent of people killed in rollover crashes in 15-
passenger vans were unbelted. Passengers can dramatically reduce their risk of being
ekilled or seriously injured in a rollover crash by simply using their seat belts.
Organizations that own 15-passenger vans should have a written seat belt use policy.
Drivers should be responsible for enforcing the policy. This is the common advice that
both researchers and producers of these vans give for driving safe (NHTSA, 2000).

*Drunk Driving*

Every thirty minutes someone is involved in a drunk driving incident. And nearly
everyone knows some one who has been harmed by a drunk driver. In 1996 it was
reported by the National Highway Safety Administration, that drivers between the ages of
21 and 24 had the highest rate of fatalities due to intoxication while driving
(www.addictiondata.org). And in 2000 there were 2,339 alcohol-related deaths of youths
between the ages of 15 and 20 (SADD). These statistics point out that the safety of
people, the drinkers and the nondrinkers alike, are in imminent danger all the time.

Unfortunately, the average college aged student falls into either or both of those
statistics, as well. And most college-aged students also participate in drinking alcohol.
There are however, laws and regulations that have come about in the past few years that help protect people from drunk driving accidents. In the state of New Hampshire, as well as many other states, there is a “zero tolerance” policy for drivers under the age of 21. There is also a new law in place that limits the blood alcohol content (also known as BAC, and measures the amount of alcohol in the bloodstream) to .08. On average for females that means more than three-and-a-half drinks in two hours, and for most men no more than five (MADD). It is statistically true that a higher BAC can result in impairing the driver. New Hampshire estimates that this limit will save lives by 7% (“Impaired driving,” 2003).

However, 44% of all college students (of legal age or not) are heavy drinkers. This means for males having five or more drinks in a row on one occasion, and for females four or more (Kapner). So, even with the laws, there is still an issue of possible drunk drivers. Because of this, many colleges have created transportation services to help reduce the risk to their students. And even though, as an article by Richard Keeling pointed out, this transportation is often regarded as the “drunk bus,” it is still in place and still used by students.

At Franklin Pierce College, Rindge campus, there is already such a thing as a “drunk bus” service. However, it only covers the areas that are campus owned. It picks students up at a number of locations around campus, and drives them back to the residence halls. There are students, however, who go out and get intoxicated at places other than on campus. These students still have to find a way back to the dorms, and many choose to drive drunk. So even though the school is trying to help reduce the number of accidents on a small scale, they have done little yet to help on a larger scale.
Franklin Pierce College Transportation

In spring of 1999, the Franklin Pierce student had came up with an idea. It was an idea that had only generated around the senior class, but rapidly grew. The idea was for a shuttle type bus to drive and pick up senior students from a local bar/restaurant called Cypress Grove, more commonly known throughout the school as the "Greeks." This idea was stellar. Students of age were allowed to get dropped off, and picked up after a night of drinking. I asked a fellow student of that year, Gary Levy (Personal Communication, October 8, 2003) what he had thought of the idea, and he told me, "The bus to and from the Greeks was very beneficial to the FPC community. Students were allowed to go out, drink, and not have to worry about who is the one to drive home. It actually felt like a small city with a taxi night life."

A great idea indeed, but almost too good of an idea. The bus would run periodically throughout the week, but it was on Tuesday nights the shuttle was the greatest hit. Soon after only seniors were using this means of transportation, the word had spread. Not even after a month or so, anyone who was anyone was trying to take this shuttle, and the fact that there was only one or two busses, could not hold that large of a capacity. Soon enough people underage would try and hop on the bus, and this caused a issue with the "Greeks." Levy, a close friend with the owner of Cypress Grove, known as "Pete the Greek," told me that he enjoyed this shuttle bus, but the point that underage people were coming to his bar, was just not tolerated. Afraid to lose his business, and with the possibility of going to jail for supplying to minors, he had to stop immediately if this continued. Sure enough it continued.
In our project we are designing a cleaner plan. A plan designed for the safety and convenience of the FPC community. Not only a trip to a bar, but this method of transportation will include the whole town of Keene, especially the down town area. Designed for the students who do not have cars, and who are over worried of drinking and driving, a bus to Keene and back will help out our community continue to grow, and prosper. With the acknowledgement of the past bus to the Greeks, we will be able to devise a more concrete and foolproof plan to get student to where they need to go, and have some fun in doing it as well.

Problem Statement

Currently there is no affordable transportation to Keene, NH from the Franklin Pierce College Rindge, NH campus. Students with no transportation are denied the opportunity to take advantage of the entertainment possibilities available in Keene. Additionally, there is a safety issue with FPC students who drive into Keene, and have to drive back while under the influence of alcohol. Research is necessary to determine whether or not a shuttle service to and from Keene would be beneficial to FPC students and their registered guests.

Research Objectives for Keene Shuttle Bus

1. Determine how much students would be willing to pay for the service.
2. Identify where in Keene students would want to be dropped off/picked up.
3. Identify which class/year of students would be most likely to use the service.
4. Determine what time, and which days, students would prefer the shuttle to run.
Methods

Development Of Survey

After designing our final problem statement we developed four research objectives. Based on the following research objectives, we developed appropriate survey questions that would address them. Our research objectives were:

1. To determine how students would be willing to pay for the service.
2. To identify where in Keene students would want to be dropped off and picked up.
3. To identify which year/class of students would be most likely to use the service.
4. To determine what time, and which days, students would prefer the shuttle to run.

We chose to use a mostly closed ended questionnaire with multiple-choice answers (only one option on question 7 was left open ended). It was decided that using close-ended questions would make analyzing the data much simpler. The team spent a lot of time developing the survey questions trying make them as clear as possible so that there would be no misinterpretation by the respondents. The order of the questions was carefully thought out to make the survey as understandable as possible. After completing our questionnaire, it was reviewed by our class to establish its validity. See Appendix A for the final version of the survey.

Population

The population for our survey was based on the 1,574 Franklin Pierce College students on the Rindge Campus (Franklin Pierce College, Course Catalog, 2003-04). An equal amount of both male and female students were surveyed for this study.
Sample

It was determined from previous research that a sample of 96 students was appropriate for our study. It was also determined that we needed to survey an equal amount of students in each class level, as well as an equal amount of males and females in each class level. We used convenient sampling, whereby the researcher used the most convenient setting and respondents for the research. We also employed quota sampling, by separating the student’s surveys into categories, we decided on class and gender.

Data Collection Method

Four of the group members were assigned a specific class ranking to collect data from, and two of the group members worked together to survey the sophomore class. This data collection was conducted in the Campus Center, on Monday morning, November 3, between the hours of 11:00 a.m. and 1:00 p.m. Many of the FPC students who were asked at this time were on their way to eat lunch in the cafeteria, and declined when asked to take the survey. These team members also surveyed a Principles of Marketing class that was mostly made up of sophomores. The students in this class were much more willing to participate because they were waiting for class to begin. The other three members in the group handed out the rest of the 72 surveys to the freshman, junior, and senior classes.

These surveys were collected from the appropriate on-campus housing. The locations were chosen because the students living there would correctly represent the groups of students needed to answer the surveys, these included; Mt. Washington, New Hampshire, Granite, Lakeview Townhouses, and the Condos. Theses students were approached late in the evening between the hours of 8:00 and 9:00 p.m. This timing allowed students to have more time to take the surveys because they were done with their
classes for the day. These students were also asked on weeknights, given that they were more likely to be at home as opposed to a weekend night. Students that were approached in their home settings seemed more comfortable and more willing to participate in the survey. During the time that all surveys were collected, group members waited with the student answering the survey in order to maintain that 12 males and 12 females were asked in each class level.

Data Analysis Procedure

After all 96 surveys were completed; the research team entered the data into a statistics program to begin calculating the results of our research. The Statistical Package for the Social Services (SPSS) program was used to generate descriptive statistics to find out the results of each of our surveys questions.

Assumptions

When designing the survey the team was working under two assumptions. The first was that we decided that we would not ask our respondents to disclose whether they were male or female because if the service were to be implemented it would be available to all students equally. The second assumption was that students would generally not be able to go to Keene before 3:00 pm because of classes and other school related obligations.

Results

The results section is broadly based around answering our four research objectives, which were to determine how much students would be willing to pay and what type of payment method would be most convenient for this service, where in Keene students would want to get dropped off, which class/year of students would be most
likely to use this service, and what days and times students most prefer. We answered these objectives with survey questions we designed (see Appendix A).

First and foremost we wanted to know if students felt that there was actually a need for a shuttle service and this was addressed by question two of our survey. The results of this were that 54.2% of respondents said that they agreed or strongly agreed that there was a need for a shuttle service, 27.1% of students said they were neutral, and only 18.8% of students said the disagreed or strongly disagreed as shown in figure 1.

*Figure 1*

**Do you feel there is a need for a bus**

![Pie chart showing the percentage of responses to the question about the need for a shuttle service.]

Another area the team investigated was how many times per month students said they visited Keene. Only 1% of the students we surveyed said they did not travel to Keene at all while 44.8% said they visited 1-2 times per month, and 54.1 traveled to Keen 3 or more times per month. This validated that students in fact do travel to Keene regularly; therefore a shuttle would be used (see Appendix B).
In determining how students would be willing to pay for the shuttle service we offered the following choices: (a) use the Raven card, (b) pay by cash per ride, (c) buy tickets, or (d) adding a small fee to the tuition. The results were 26% of the students said they preferred to pay with the Raven Card, 41.7% said they wanted to pay by cash per ride, 10.4% said they would buy tickets, and 20.8% said they would prefer to have a small fee added to tuition (see Appendix C).

In identifying where in Keene students would want to get dropped off the results were that 47.9% said that they preferred to get dropped off in downtown Keene. Downtown was considered the area where Margarita’s restaurant is and where all of the shops are. The next highest percentage was 26% for Keene Plaza where the Wal-Mart, UNO’s restaurant, Burger King, and the 99’s restaurant are located. 11.5% of students said they preferred to go to the Keene Cinemas, 9.4% said Keene State College, and 5.2% said Colony Mill Mall (see Appendix D).

Next the team wanted to determine if any there was any differences between class standings as to whether or not they would use the shuttle service. A cross tabulation was performed to determine any significant differences. In the freshman class 13 participants agreed or strongly agreed that they would use a shuttle to Keene while 5 disagreed or strongly disagreed. In the sophomore class 10 agreed or strongly agreed while 8 students disagreed or strongly disagreed. In the junior class 8 students agreed or strongly agreed that they would use the service while 11 disagreed or strongly disagreed. Finally in the senior class 17 students agreed or strongly agreed that they would use the service while only 2 strongly disagreed with the statement (see Appendix E). Until the results of the senior class were tabulated there was a distinct pattern where by as the class standing got
higher fewer students said they would use it and more said they would not. This changed when looking at the senior class, and the team inferred this might have had something to do with the issue of drinking and driving. So next we looked into the age of students and whether or not they said they would use a shuttle service.

When a cross tabulation was performed on the questions “How old are you?” and “Would you use a shuttle service?” the results were as expected. Twenty-two of the respondents who were 21 or older said they agreed or strongly agreed that they would use the shuttle. Only 8 of the 20 year-olds said they agreed or strongly agreed, while 11 of the 19 year-olds, and 7 of the 18 or younger said they agreed or strongly agreed (see Appendix F).

Another aspect that the team was interested in investigating was whether or not students who had cars would be willing to use the shuttle service. A cross tabulation was performed on the question “Do you own a car on campus,” and the statement “I would use a college shuttle service to and from Keene.” The results were that of the 66 people who own a car 28 said they agree or strongly agree that they would use the shuttle while 21 disagreed or strongly disagreed, the remainder where neutral. Of the 30 respondents who did not own a car, 20 agreed or strongly agreed that they would use the service while only 5 said they disagreed or strongly disagreed, the rest felt neutral. Figure 3 below shows the results in bar chart form.
Finally the team wanted to determine what time, and which day students would most prefer to use the shuttle. To get a more accurate idea of what the most preferred times would be we put two questions on the questionnaire. The first one was “What time would be best for a shuttle to start its hourly runs to Keene and back?” and “What is the latest time you would want the shuttle to pick you up in Keene for its final round of the night?” 29.2% of the students said they would like to see the shuttle start at 3:00 pm while 32.3 % said 4:00pm, 25% said 5:00pm and 13.5% said they would prefer 6:00pm. The major percentage of students, 53.1% said they preferred to be picked up at 1:00am, 34.4% said 12:00am, 9.4% said 11:00pm and 3.1% said 10:00pm (see appendix G, Figure 4 & 5).
Limitations

The limitations of this research were minor factors that may have impacted the results. The most common factors that the team came up were: the lack of resources, the lack of time, the group member’s lack of knowledge with the SPSS 10 software, respondents answering questions with more than one answer, and the convenient sampling that may not have given an overall view.

We survey 100 people from Franklin Pierce College community. Out of those 100 surveys, 6 were thrown out because the respondents answered with more than one answer. This left us with 96 surveys, 24 per class. If students answered questions in a hurry, or just didn’t give much thought into how they were answering our questions, it also could have negatively affected our results.

Honesty is what all market researchers hope their respondents give them. This is why we made our questions as clearly and straightforward as possible. We hope that our questions were simplified enough that people did not become confused when reading them. However, this could have occurred and people may have answered anything if they did not comprehend a question. Overall, our limitations were not significant enough to drastically change our results. They are situations that every researcher faces when surveying a sample.

Discussion

At Keene State College they have a shuttle service for students that is free of charge. In our research we found that 38% of students were willing to pay between one and two dollars. Also at Keene, the shuttle runs from 6:30am to 7:00 pm, but we found that students wanted to use the shuttle late at night, for recreation purposes. However, at
Bloomburg University in Pennsylvania they initiated a shuttle service to provide a safe way for students to get around after they have been drinking. This was prompted after a student was killed walking home late at night.

The majority of students who agreed that they would use the service were 21 or older, and wanted to be dropped off at the downtown Keene area, where a number of bars are located. From this we could infer that these students wanted to use the service as a safe way to get home after a night of drinking. Especially since Keene is approximately thirty minutes away it is unsafe for students who may be tired or have been drinking. Our research has shown that 44% of college-aged students are heavy drinkers whether they are of legal age or not. Also in 2000 there were 2,339 alcohol related deaths of youths between the ages of 15 and 21. Statistics such as these further support why the need for a shuttle is so strong.

Conclusion and Recommendations

Based on the survey results students feel that a shuttle would be beneficial to the Franklin Pierce College community. Students would prefer to use the shuttle on Friday or Saturday and would prefer to pay by cash per ride. A reasonable price for the shuttle service would be $1-$2. The most convenient time for the shuttle to start running would be 4:00 pm and students would want the shuttle to run until 1:00 am. The students were given five choices of different places to be dropped off and picked up and the most popular place for a drop off would be downtown Keene where Margarita’s and a number of other shops and clubs are located. We would recommend for both safety and recreational purposes that Campus Safety implement a service like this. Campus Safety could use the shuttle stops on campus that are already in place to pick up and drop off
students. Campus Safety could also work in collaboration with other student organizations such as Campus Activities Board, and Student Government to create fliers and posters to help raise awareness of this shuttle. It might also be most beneficial to promote this idea to the senior class as this class had the highest proportion of respondents who said they would use this service.
References


Appendixes
A marketing research team made up of Franklin Pierce College students designed this survey to find out if a shuttle bus service from campus to Keene and back would be beneficial to FPC students and their registered guests. Participants have been chosen at random. Please answer the following questions to the best of your ability. Your individual responses will be kept confidential and all data taken from the survey will be reported as aggregate data only.

1. Do you own a car on campus? YES___ (1) NO___ (2)

2. There is a need for a shuttle bus service from campus to Keene. (Please circle the value that best applies.)

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>Neutral</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

3. I would use a college shuttle service to and from Keene.

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>Neutral</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

4. What is the most you would be willing to pay for this service?

   - Less than $1 ____ (1)
   - $1- $2 ____ (2)
   - $3- $4 ____ (3)
   - $5 or more ____ (4)

5. If you had to pay for this service which payment option would you most prefer?

   A. Raven Card ____ (1)
   B. Tickets ____ (2)
   C. Pay by cash per ride ____ (3)
   D. A small fee added to tuition ____ (4)

6. Which day would you be most likely to use a shuttle to Keene? (please mark only one)

   Monday ____ (1) Tuesday ____ (2) Wednesday ____ (3) Thursday ____ (4)
   Friday ____ (5) Saturday ____ (6) Sunday ____ (7)

7. In which place would you prefer to get dropped off/picked up in Keene?
A. Downtown Keene (Margarita’s, shops)_____ (1)
B. Keene State College _______(2)
C. Keene Plaza (Wal-Mart, 99’s, UNO’s) _____ (3)
D. Keene Cinemas _____ (4)
E. Colony Mill ________ (5)
F. Other _______________________________ (6)

8. What time would be best for a shuttle start its hourly rounds to Keene and back?
   3:00 pm____(1)  4:00 pm____(2)  5:00 pm____(3)  6:00 pm____(4)

9. What is the latest time you would want the shuttle to pick up students in Keene for its final round of the night?
   10:00pm____(1)  11:00pm____(2)  12:00am____(3)  1:00am____(4)

10. How many times a month do you visit Keene?
    Zero ______(1)
    1 _____(2)
    2 _____(3)
    3 _____(4)
    4 or more _____(5)

11. What is your class standing? Freshman____(1) Sophomore____(2)
    Junior____(3)  Senior____(4)

12. How old are you? 18 or younger____(1)  19____(2)  20____(3)  21 or older____(4)
Appendix B

How Many Times Per Month Do Students Visit Keene
<table>
<thead>
<tr>
<th>Frequency</th>
<th>How many times per month do you visit Keene?</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
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<td>Zero</td>
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<td>1.0</td>
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<td>Three</td>
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<td>33.3</td>
<td>79.2</td>
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<td>Four or more</td>
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<tr>
<td>Total</td>
<td></td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>
Appendix C

Which Payment Types Students Preferred
Which payment type would you prefer

![Bar chart showing payment preferences.]

- Raven Card
- Pay by cash per ride
- A small fee added to

Which payment type would you prefer
Appendix D

Places of Interest In Keene
<table>
<thead>
<tr>
<th>Location</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
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</thead>
<tbody>
<tr>
<td>Valid</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Downtown Keene</td>
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<td>47.9</td>
<td>47.9</td>
<td>47.9</td>
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<tr>
<td>Keene State College</td>
<td>9</td>
<td>9.4</td>
<td>9.4</td>
<td>57.3</td>
</tr>
<tr>
<td>Keen Plaza (Wal-Mart, 99's)</td>
<td>25</td>
<td>26.0</td>
<td>26.0</td>
<td>83.3</td>
</tr>
<tr>
<td>Keene Cinemas</td>
<td>11</td>
<td>11.5</td>
<td>11.5</td>
<td>94.8</td>
</tr>
<tr>
<td>Colony Mill Mall</td>
<td>5</td>
<td>5.2</td>
<td>5.2</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
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Appendix E

Crosstabulation Between Class Standing and Would You Use a Shuttle Service
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<th>What is your class standing</th>
<th>Would you use a shuttle bus</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Strongly agree</td>
<td>Agree</td>
</tr>
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<td>Freshman</td>
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<tr>
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<td>7</td>
</tr>
<tr>
<td>Junior</td>
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<td>5</td>
</tr>
<tr>
<td>Senior</td>
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<td>11</td>
</tr>
<tr>
<td>Total</td>
<td>20</td>
<td>28</td>
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Appendix F

Crosstabulation Between Student’s age and Would You Use a Shuttle Service
Would you use a shuttle bus

<table>
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<th>Count</th>
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<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
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<td></td>
<td>20</td>
<td>19</td>
<td>12</td>
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</tbody>
</table>

How old are you

- 18 or younger
- 19
- 20
- 21 or older
Appendix G

Start Time and Stop Time for a Shuttle Service
What is the best time for shuttle to start running

![Bar chart showing the count of preferences for shuttle start times]

What is the best time for shuttle to stop running

![Bar chart showing the count of preferences for shuttle stop times]