Use of Public Transportation by Students in California: An Analysis of Attitudes and Behaviors

Kevin Chavarria

Writing 50

Professor: Dr. Vanessa Coloura

March 12th, 2008

An Introduction

Californians are always moving. Life in this state requires that one travels to meet the needs of work, of home, and the need for play. The favorite mode of transport is the car, or private vehicle. Unfortunately, so many people drive their cars that the California roads are congested to the point that energy is being wasted, commutes are disrupted, and the environment is being polluted. There may be a solution to this problem in the form of Public Transportation, because when utilized it reduces the amount of travelers using their private vehicles. The PT (Public Transportation) system is in place in the larger cities of California, where traffic congestion is the worst. It consists of a network of bus, train, trolley or light rail, ferry, and other large capacity vehicles that transport passengers to various stations in an area for a low fare that is often adjusted for distance traveled. This alternative mode of transport is important because the more travelers that use the system, the less drive their cars and contribute to congestion. Not enough people are utilizing this resource to help reduce traffic. In my research, I aim to find out what is important to students in California specifically when choosing to use PT and what parts of the "PT Experience" they value. I define the "PT Experience" as the combination of choosing whether or not to use PT as well as the act of physically traveling in a PT vehicle. The hope is to find factors that impact a person's choice in whether to use PT. I hypothesize that due to the lack of availability, inefficient travel, and lack of comfort in PT, students in CA are not using PT as much as they potentially could. Knowledge of their preferences can be used to improve the PT system and make it more attractive to travelers so that they keep their cars in the garage more

often in favor of PT, which will provide some relief for a state besieged of widespread and intense traffic congestion.

What Is Present in the Literature about Public Transportation

The Public Transportation systems in California have been thoroughly investigated and scrutinized over the years, and almost every time they have proven effective in moving travelers. Sadly though, our choked freeways show that systems are not used by enough people. Despite this, many believe that the dream of full buses, trains and trolleys, combined with nearly empty freeways is a realistic one. The article "In a Jam; the San Francisco Bay area" describes how people who normally drive to San Francisco to work were forced to use PT for a short period time due to an accident on a major artery, and the situation was not a disaster (*The Economist*, May 5th, 2007). It illustrates that a major shift to primarily PT use is plausible, at least in SF, where during this period the city was said to resemble a European city.

A few changes to the PT system have been introduced by previous researchers. For example, Motavalli and Schildgen (Jan-Feb 2002) describe how in Curitaba, Brazil, bus-only lanes make it so buses don't have to wait in traffic and congestion has been reduced. They propose this is a cost-effective way to improve the PT systems. The idea of providing employee benefits for those who use PT so that there is an incentive to use the resource instead of drive to work has been put forth ("Transportation: the latest 'hot' benefit", July, 2006). Alyssa Walker (Feb 2007) notices in her article that since the buses in L.A.'s PT system changed their outward appearance, ridership and rider satisfaction with the service has increased, even though nothing else about the service has changed. This could be a way to entice people to use PT more. While not proposing specific

improvements, many researchers have found aspects of the PT experience that they believe are critical to those who use it. Wright (Fall 2007) reminds us that when you increase the fees to use PT, it means a drop in ridership. She emphasizes that the price of PT may keep people from utilizing the service. An article in *Mass Transit* describes the struggle of long-distance commuters, and highlights the importance of a comfortable ride for travelers. In this article Faber (June 2007) also realizes how significant comfort as well as other factors of a ride in PT are to passengers. He tells how customers said they "value a 'clean, comfortable ride, good value…and the ability to get where they need to go without problems'". Travel time was rated as vitally important to respondents in a study conducted in Malaysia (Abdalla, Rahmat, Ismail, July 2007).

There have been other studies like the one previously mentioned that show what certain researchers feel is important to travelers in their choice to use PT. For instance, social norms and concerns about the environment predicted whether or not a person will choose to use PT in a study done by Bamberg (Sep 2007). Nichols (Feb 1994) studied opinions of subjects concerning commuting to work in Los Angeles, and she found that the main factor influencing their choice of whether to use PT or not was convenience. A very useful study was one conducted by Gatersleben (May 2007) where as part of the study subjects gave examples of attributes of a bus ride that they enjoyed. These included, "looking at scenery, listening to music, reading, and talking to other people". A brochure designed to persuade people to use PT was handed out to people in a study conducted by Beale (July 2007), and the brochure appeared to have little effect of increasing the frequency of their PT use. Another study also found that even though subjects were presented with information about PT, past habits of PT use were still a

better predictor of future PT use (Davidov, Aug 2007). In my study the parts of the PT experience that these researchers proposed as valuable to travelers, as well as information about their preferences, were examined, along with some of my own ideas, to see if they would indeed be rated as important by my respondents.

Background of Public Transportation System in place where Study Was Performed

The subjects in the study are all UCSB students who reside either on the campus or in the neighboring communities of Isla Vista and Goleta. The system in the area of the University is the Santa Barbara Metropolitan Transit District (SB MTD), which has 27 bus lines, 6 shuttle lines, and one express bus line which travels from Santa Barbara to the cities of Solvang and Santa Maria. It has a detailed website from which I gathered all of the information about SB MTD (www.sbmtd.gov). The service covers 52 square miles: downtown Santa Barbara, Goleta, IV, Ellwood, Carpinteria and Montecito. The website has a page with step by step instructions on how to use their PT service, and also a detailed system map of all bus lines in the service. The buses are considered top of the line, with bike racks on the front of the buses, part of a "bike and bus" service, all buses are equipped with wheelchair lifts and ramps, and they are "low floor kneeling buses": buses equipped with hydraulics that lower bus down to make it easier for people to board. They have TDD systems for the hearing or speech impaired, and -service animals are allowed on board. The handicapped are taken care of and not excluded from using this service. Regular fare is $1.25, for seniors $0.60. Medicaid recipients the disabled, people who are blind, children and students are free. The express "valley express" line is $4.00 to ride and shuttles are $0.25. The system's annual ridership is 7,079,066, and there are 760 stops total (Duffy, July 2001, ""Santa Barbara has the largest electric bus

fleet in North America."). An interesting and salient fact that we learn from the Duffy article is that Santa Barbara has the most electric buses in the U.S., 24 are electric and 72 are diesel powered.

Specific to the student experience, lines 6, 11, 8, 10, 12x, 24x, 15x, 23, 25, 27, and old town shuttle all service the UCSB campus and the neighboring communities of Goleta and Isla Vista within two miles. 10 total stops are in this zone, which are easily accessible to students. The first bus enters this zone at 6:50 am, the last bus at 12:00 am. The schedule changes for the weekends with slightly less buses running throughout the day and also not running as late at night.

A long distance travel option for UCSB students is the Amtrak train service. There is a station within 2 miles of campus in Goleta, and also a station in downtown Santa Barbara. The Amtrak website gives these details of which I include in this section: fares are more expensive the farther you travel; with each stop you pass the fare goes up (www.amtrak.com). A traveler has the option to upgrade from coach to business class, which have sturdier tables and more padded seats for an extra charge. Students can apply for a special student pass which gives them a small discount every time they ride an Amtrak train. Most trains that run are “Pacific Surfliner” trains, which are the basic model for Amtrak, but a limited number are “Coast Starlight” trains which are equipped with sleeping cabins and such to accommodate a longer ride. No matter what kind of ticket you buy, you always have access to a snack bar, and the option for checked luggage. The system has stations across the U.S., including many up and down California. On the west coast the farthest station north is Seattle, Washington, and the farthest south is San Diego, California.

Students at UCSB have ample opportunities to use the Public Transportation systems in place in Santa Barbara, because the Amtrak train system has 2 stations near and also the SB MTD service has 10 stops near enough to campus for students to use. Also, it appears from what their websites say that the services thoroughly cover the immediate area around the UCSB campus and also around the state, so theoretically availability and distribution of bus/train routes for travel should not be considered a problem. From the biographies of these services it appears that they provide all that Public Transportation systems should provide to UCSB students.

Methodology of the Study

Feedback was provided in the form of an anonymous survey I designed on createsurvey.com and administered to a number of students attending the University of California, Santa Barbara. Questions on the survey ask about past and current PT usage, satisfaction with the services, and it asks respondents to rate certain aspects of the PT Experience. The questionnaire responses are on an interval rating scale, where subjects choose from a range of responses (ex: Highly Important to Highly Unimportant). The survey was administered in 2 different ways. First, students in my Writing 50 class were required to access and complete the survey online during class. Secondly, a link to the survey was posted on the website *Facebook* where friends of mine (also students at UCSB) self-chose, followed the link and responded to the survey. The sample includes 32 students, all over the age of 18 and beyond their first year of school at UCSB, who are either my friends or in my Writing 50 class. This number I feel is large enough and the methods of sampling random enough to consider the sample as representative of the

UCSB students demographic. Each subject's responses were logged on createsurvey.com and saved where I later accessed them for analysis.

Results from the Survey

The data I received from the surveys are primarily quantitative in nature, with each response having a corresponding number that indicates the level of the response. I chose to assign these values to the responses to make it easier to chart them, graph them, and later statistically analyze them. For the first section, the subjects gave the demographic information of year in school and the city in which they consider their hometown. These answers are unimportant to my study as they do not provide any insight into attitudes or behaviors, only information. I consider instead the following three sections: satisfaction with PT use at home and in Santa Barbara, aspects of choosing to use PT that were important to them, and aspects of the actual physical riding in a PT vehicle that they valued.

While at home, respondents did not use PT very often. The graph is left skewed, which indicates that the respondents tended to only use it infrequently. Most responses fall in the "Yearly" or "Never" categories. The frequency most responded was "Never" (13/32 or 40.62%). Their feelings of satisfaction towards their PT Experience while at home were neutral; they did not feel overwhelmingly positive or negative towards it. The sentiment most felt was "Neutral" (20/32 or 62.5%).[1]

Now, while living in Santa Barbara, respondents still do not use PT very often. The graph is also left skewed; indicating respondents still tend to use PT in SB less frequently. A difference from at home use, responses are more concentrated around the

[1] See Appendix A for graphs of this set of responses.

"Monthly" and "Yearly" categories. The frequency most responded was "Yearly" (12/32 or 37.5%). Interestingly, they feel more satisfied with their experience with PT here in SB. The sentiment most felt here was "Satisfied" (15/32 or 46.8).[2]

For the next section where respondents were asked to rate importance of aspects of choosing to use PT, when the graphs are heavily right skewed it is qualified as a "Very important" feature to respondents. When the graphs are just right skewed, they are qualified as "Important features". When they are left skewed, they are qualified as "Not important" features to respondents. A "1" response is a factor rated as most important and a "5" is a factor rated as least important. The higher the mean of the responses for each question, the less important the factor was to the respondents, the lower the mean, the more important it was to respondents.[3]

Respondents said that they valued information about the availability of routes of PT; quickness to get them where they wanted to go, convenience, and how near a station is to their home the most of all the factors. Their means are 1.59, 1.5, 2.12, and 1.81 respectively. All these graphs are heavily right-skewed, responses fall mainly towards the "Highly important" end of the spectrum. They also said that the cleanliness of PT vehicle emissions, the price of PT, connections to other modes of transport, and the frequency of routes being run throughout the day were important to them. Their means are: 2.53, 2.22, 2.28, and 2.03 respectively. These are medium sized, but still under 3, which indicates that they are more important to the respondents than just "neutral". These graphs are all slightly right-skewed, responses tending to fall on the higher

[2] See Appendix A

[3] See Appendix B for graphs of these results, for each question in this section.

importance side of the spectrum. Finally, the only factor that was not considered important was how other people perceive PT usage, with a mean of 3.53. This is above 3 which indicates that the respondents rated it as less important than neutral. This graph was left-skewed, with responses falling towards the "Highly unimportant" side of the spectrum.[4]

In this last section the subjects were asked to rate certain aspects of physically riding within a PT vehicle as valuable to them or not. Here, the graphs that are heavily left-skewed were qualified as "valued highly" by the respondents. The graphs that are just left-skewed were qualified as "valued" by the respondents. Lastly, the graphs that are right-skewed were qualified as "not valued" by the respondents. A "1" response is the most valuable, a "5" response is the least valuable. The higher the mean of the responses, the less valuable the factor is to the respondents, the lower the mean the more valuable it is to the respondents.[5]

Respondents indicated that they valued comfort and the courtesy and service of PT employees very highly. Their respective means are 2.09 and 1.84. They are low, indicating they are considered as more valuable by the respondents. These graphs are heavily left-skewed, responses tended to fall towards the "High" end. The respondents also said that they valued listening to music and a smooth (not bumpy) ride. Their means were 2.78 and 2.69 respectively. They are moderately low and below 3, indicating that they are slightly valuable to the respondents. These graphs were slightly left-skewed, tending to fall on the higher side of the spectrum more. These aspects: the outside

[4] See Appendix B

[5] See Appendix C for detailed graphs of this set of responses to the questions of this section.

appearance of a PT vehicle, the scenery, conversation with other passengers, entertainment, and wireless internet and computer ports; were not valued by the respondents. Their means are 3.5, 3.66, 3.78, 3.69, and 3.25 respectively. Since these means are higher than 3, they indicate that the respondents did not value them. These graphs were right-skewed, responses falling towards the "Low" end of the spectrum.[6]

Discussion of the Findings of the Study

The results from this study provide us with a profile of the usage of PT by students in California, and a decent picture of what their attitudes towards and preferences for PT are. Since generally students don't use PT more than once a month, and did not while at home either, it can be said that they are infrequent PT travelers. It appears that the system of PT in place in Santa Barbara better suits them since they indicated that they are satisfied with it, compared to feeling neutral towards the systems in their hometowns. Also, they tend to use it a little more frequently, most using it monthly to yearly, instead of yearly to never while at home. Based on this study we cannot know for sure what it is specifically that makes them more satisfied, but we can assume that the factors that they identified here as important or valuable contribute to this feeling of satisfaction. It can be inferred that these important or valuable factors are better in the system in SB as opposed to the ones at their hometowns.

I set out to find what parts of the PT Experience are critical to students in California, and my respondents did tell me which parts they consider most critical. At the onset, I identified which aspects of both choosing to use the service and physically using it had been proposed by previous researchers, and also hypothesized which others may be important based on my own experience. The respondents gave me the valuable

[6] See Appendix C

information of which factors they consider most critical, therefore identifying the factors that make the service fit their needs and desires, and that make them more apt to use PT.

For the choice of whether or not to use PT, the factors that are important to students are the cleanliness of PT vehicle emissions, the price of PT, connections to other modes of transport, and the frequency of routes being run throughout the day. Especially important are information about the availability of routes of PT, quickness to get them where they want to go, convenience, and how near a station is to their homes. From this, PT departments should consider all these aspects of their system for improvement. They should look extra closely at their marketing sector, namely how they provide information about their service, and where their routes run. If students can be provided with accurate information and able to choose adequate routes that run close to where they need to go and also to where they live, then their needs will be met, they will be happier, and thus more likely to leave their cars in the garage and utilize PT.

Concerning the actual physical experience of riding within a PT vehicle, the factors that students value are listening to music, a smooth (not bumpy) ride, and especially valuable to them are comfort and the courtesy or service of PT employees. From what is gathered here, the PT departments needs to give more attention to making travelers as comfortable as possible in a PT vehicle, make sure their employees are courteous, and apparently enable passengers to listen to music. Improvements could be speakers and radio in the vehicles, heating and air conditioning in those that don't have them, ergonomic and soft seats, and maybe a thorough training process when hiring employees to make sure they learn customer service skills. Also, resources should not concentrate on the factors valued as low like entertainment and scenery, so that money

can be used properly on improving aspects that are actually important to PT travelers. Once passengers can be assured of comfort and courtesy, it is possible based on this study that they will begin to utilize PT more often.

Looking specifically at the aspects of the PT Experience that the previous researchers had proposed as possibly being important to travelers, my study found that most of these aspects were rated as important or valuable by the respondents, although some were not. Environmental concerns (Bamberg, Sep 2007), information about PT (Davidov, Aug 2007), listening to music (Gatersleben, May 2007), convenience (Nichols, Feb 1994), travel time (Kumba et al, July 2007), comfort (Faber, June 2007) and the price of PT (Wright, Fall 2007) were all rated as important or valuable to varying degrees by my respondents, supporting the claims of these previous researchers. Although, social norms (Bamberg, Sep 2007), the scenery and conversation with other passengers while using PT (Gatersleben, May 2007), and the outside appearance of PT vehicles (Walker, Feb 2007) were not rated as important or valuable by my respondents, therefore they were not supported by my study. The aspects that were supported, combined with the ones I proposed that were supported, make up a useful guide of aspects of PT that should be considered by the PT departments in California.

It was expected that the students would say that they were not entirely satisfied and that they did not use the service very much, and these expectations were affirmed. Although, not all the factors examined that we (I and previous researchers) expected to be rated as important actually were. This is surprising and valuable because it delineates which aspects are the most important and deserve improving.

How the Study Could Have Been Improved

This study served my purposes, but could have been significantly improved. Many respondents indicated that they "Never" used PT both at home and here in SB, and also that they felt "Neutral" towards the their past experiences. This is a problem because it makes their responses purely theoretical, meaning their preferences and attitudes have never been tested. I feel that in order to get more valid responses, questions need to extract opinions about PT from experience, not just theoretical likes and dislikes. Also, this study does not give any information about IF any specific improvements were made, WOULD the students actually use it more? Since they only indicated which factors are important, we cannot know the manner in which the students evaluate these aspects, more or less desired, or positive or negatively. In another study, there should be questions after each "Is this factor important or valuable" question, that ask whether the subject considers the factor to be positive or negative, and if it were changed according to their liking, would it make them more likely to use the service. Also, it would be prudent to sample students from other California universities besides UCSB so that the findings can be generalized to all students in California. The last problem, is that the sample does not apply to a very large demographic; only students in California. Most drivers in California are not students but working adults instead. A better design would have been to have a larger sample, of people of different ages and occupations, so that the findings could be applied to a larger demographic. This way the PT departments can be confident that the changes that they will potentially be making will be better for a majority of citizens, not just the students in the state.

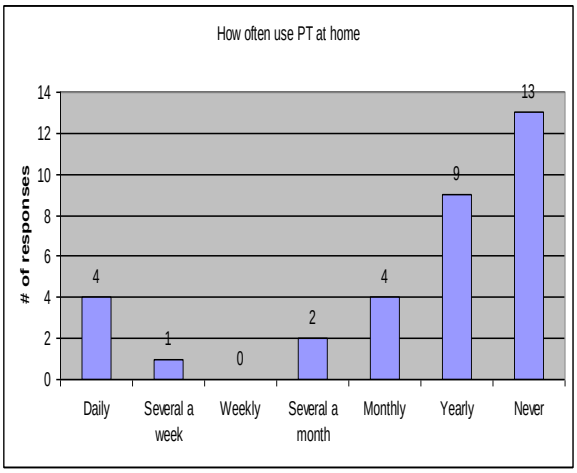
Conclusion: Considering the Implications of this Study

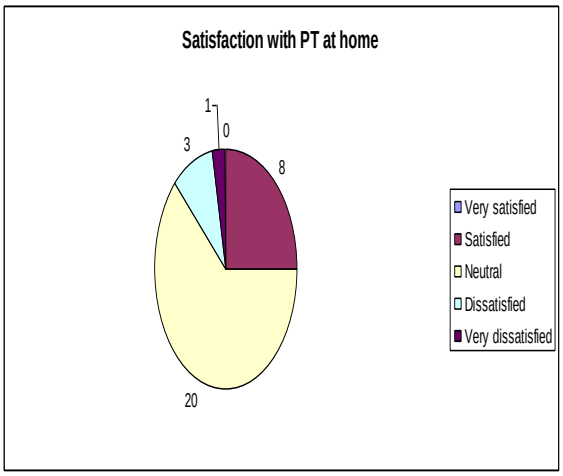
In summation, PT departments need to be informed of the factors identified as important by the students that have an impact on their use of PT, so that the departments can tailor their service to better serve this population. I recommend that the PT departments consider their routes, marketing, how they provide information, courtesy of their employees, and level of comfort present in their vehicles. While these aspects of the PT departments may not be flawed or insufficient, it would be prudent for the departments to take a look at these to make for absolutely sure they are meeting standards and adhere to the preferences of the respondents in this study.

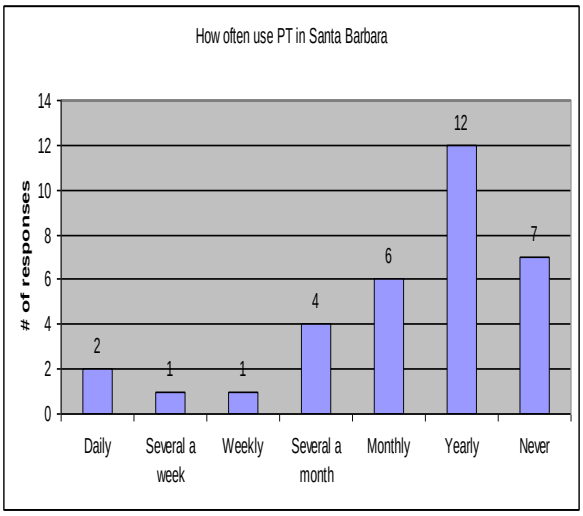
It appears that my thesis was supported by the data; the respondents indicated that factors of availability of routes, efficient travel, and comfort are important factors of their PT Experience. While we can't know for sure if the respondents will be more apt to use the service if changes were made, by making sure that these aspects are as good as the departments can make them, we can be assured that the best product is available to students, and therefore there is the best chance that students will take advantage of it. If students do not use the service when it is best suited for their needs and preferences, then the fault for low ridership does not fall with the services themselves. The hope is that once these prospective changes or improvements are made, the PT service will attract more students to use it. Studies that follow this one will shed light on what aspects can be improved that will make the services more attractive to all Californians, where everyone in the state will begin to travel more with PT. After ample time and effort, this will result in a reduction of the detested damaging traffic congestion, and a better California for its nomadic, traveling citizens.

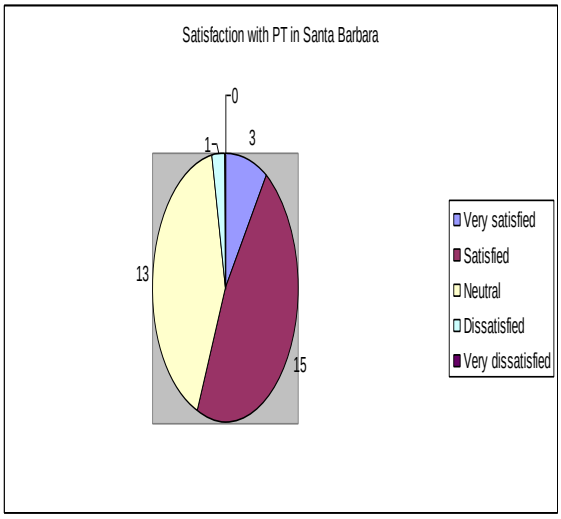
Appendices

A: Graphs of responses to questions concerning PT usage at home and in Santa Barbara. Questions #3-6.

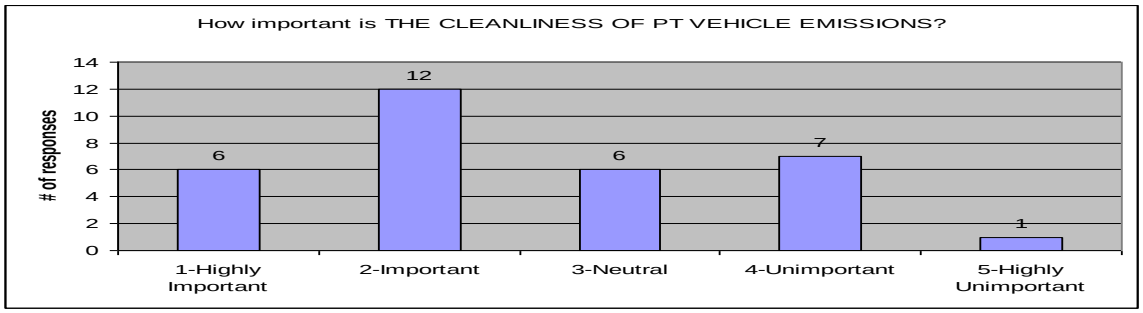




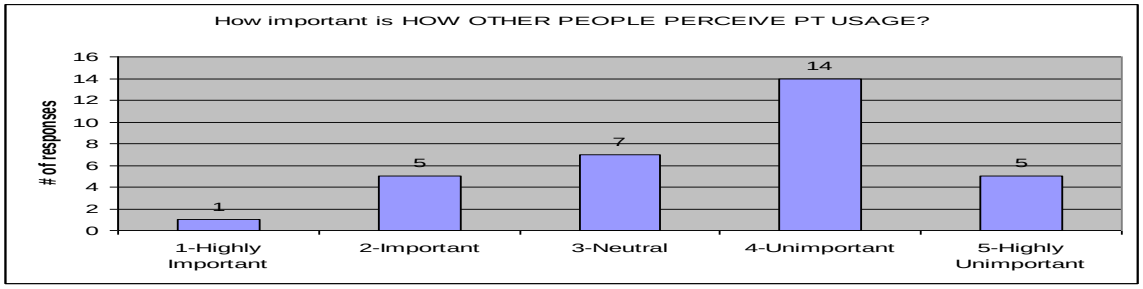




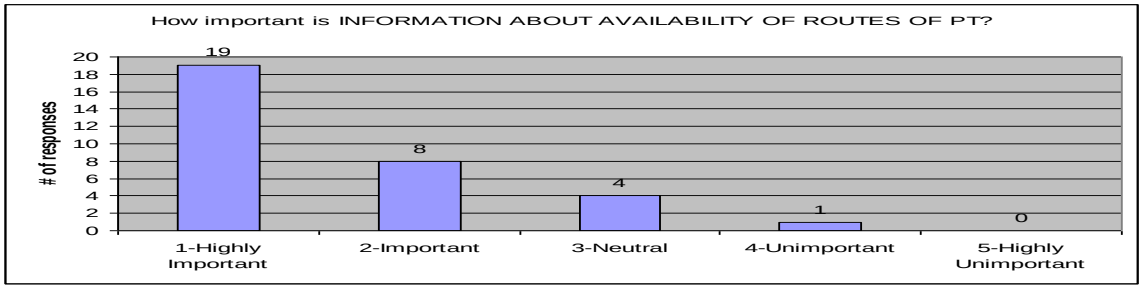
B: Graphs of responses to questions concerning aspects of the PT service. Questions #7-15.



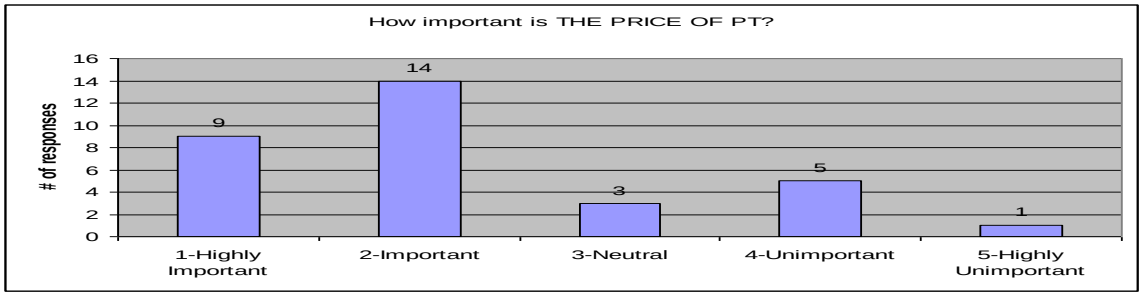
mean: 2.53



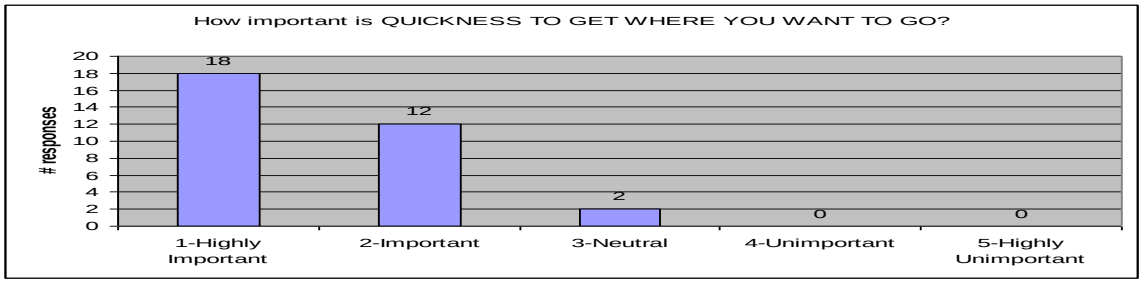
mean:3.53



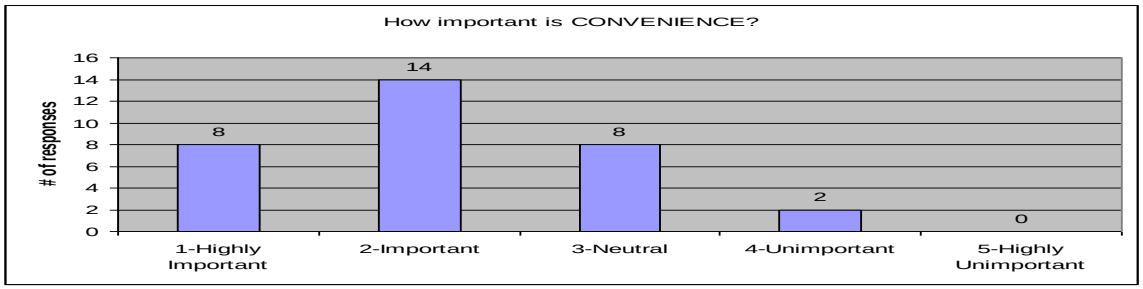
mean:1.59



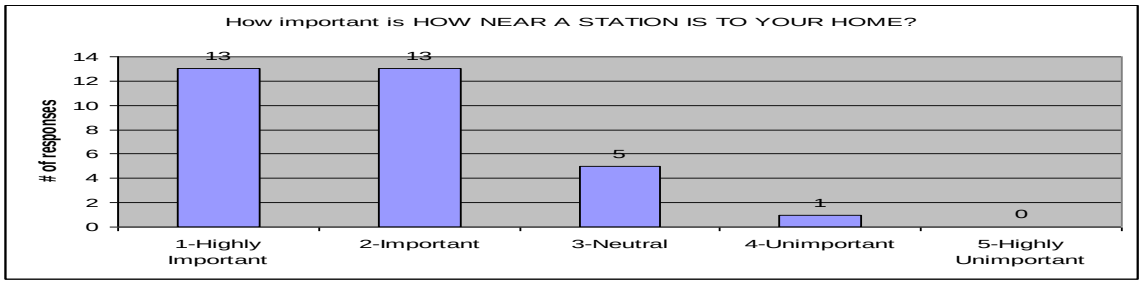
mean:2.22



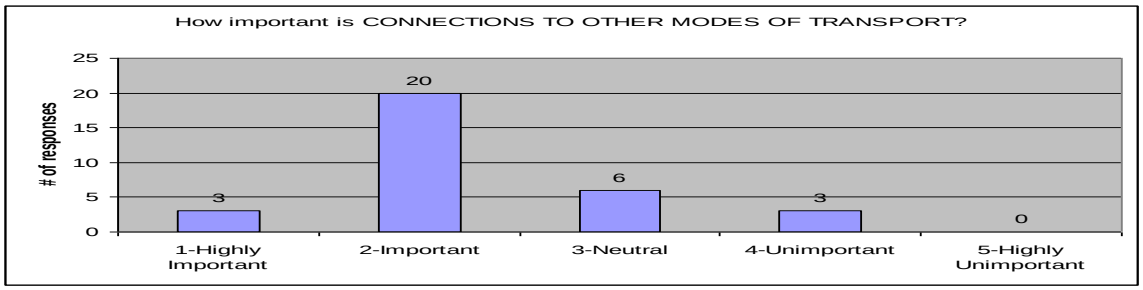
mean:1.5



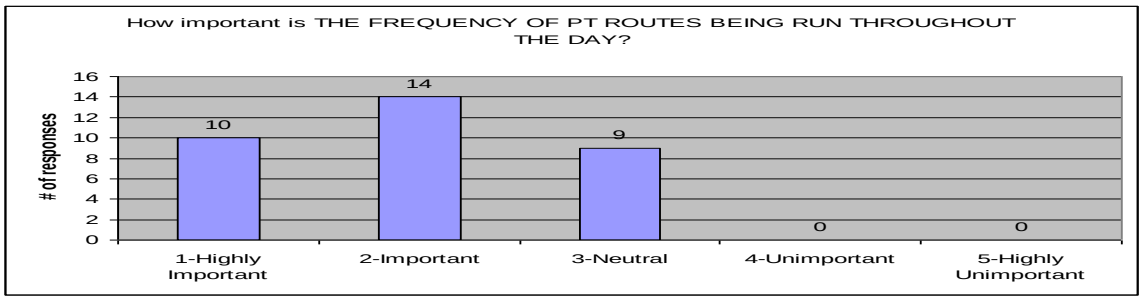
mean:2.12



mean: 1.81

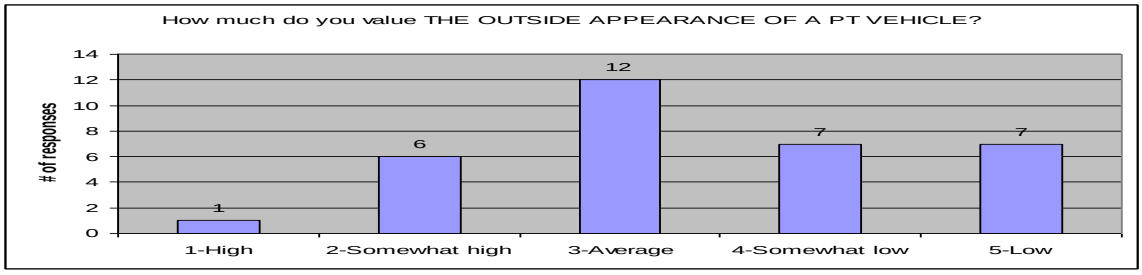


mean: 2.28

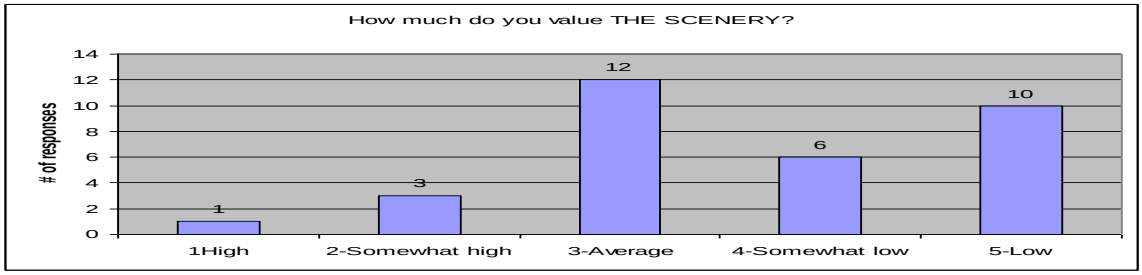


mean: 2.03

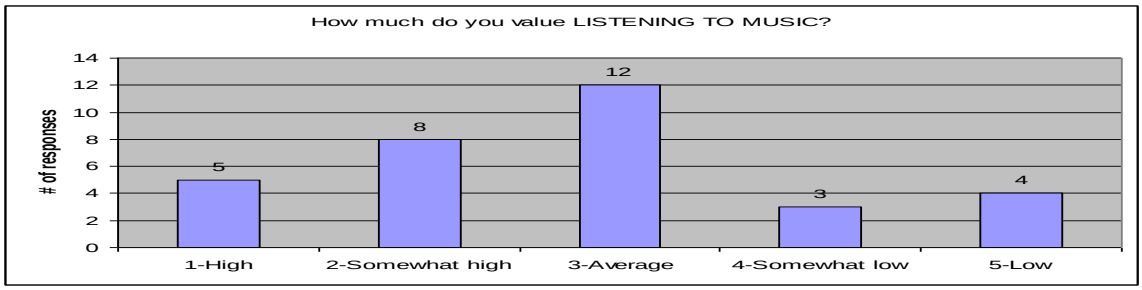
C: Graphs responses to questions concerning the actual physical experience of riding in a PT vehicle. Questions #16-24



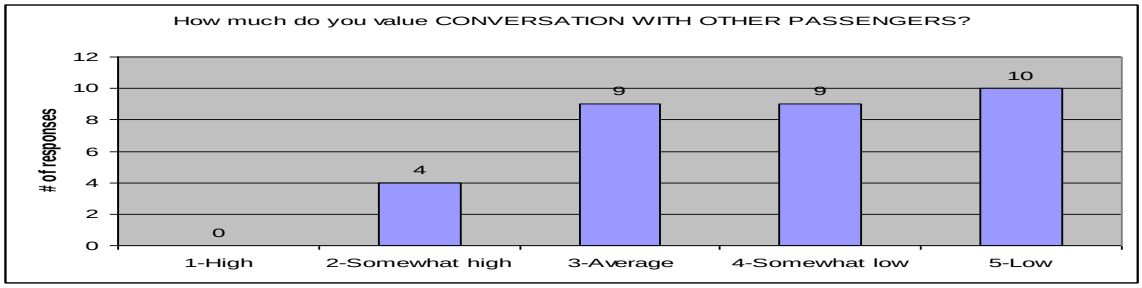
mean:3.5



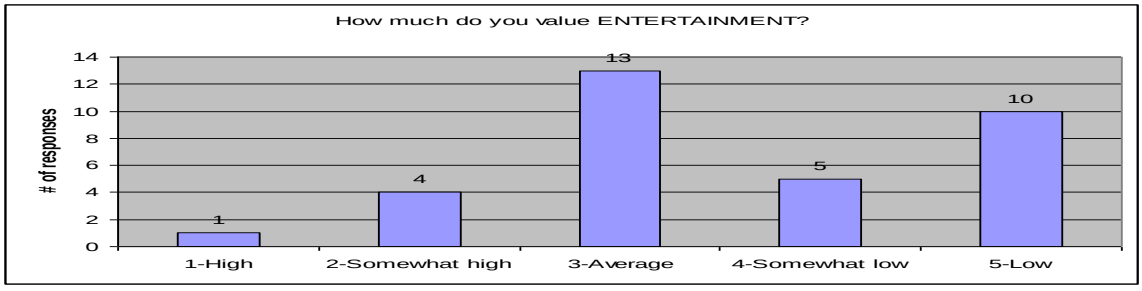
mean:3.66



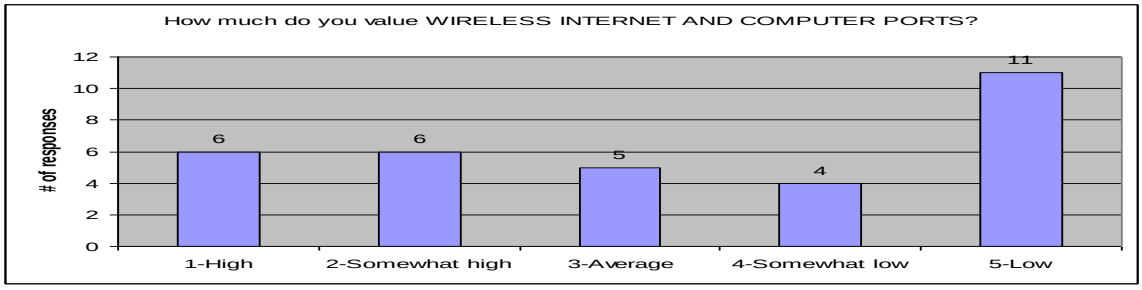
mean:2.78



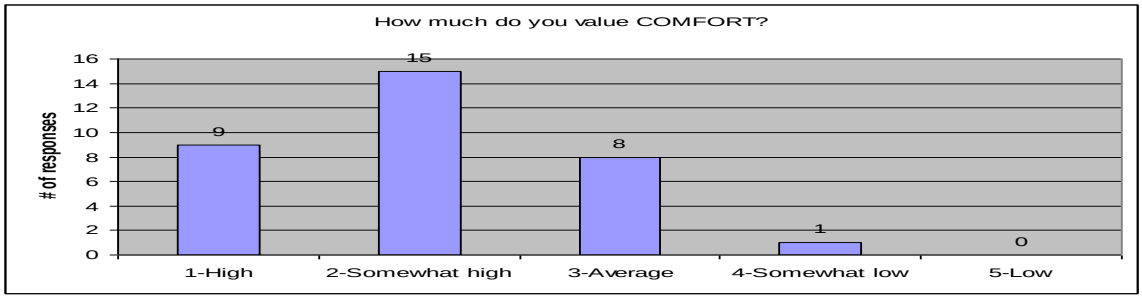
mean:3.78



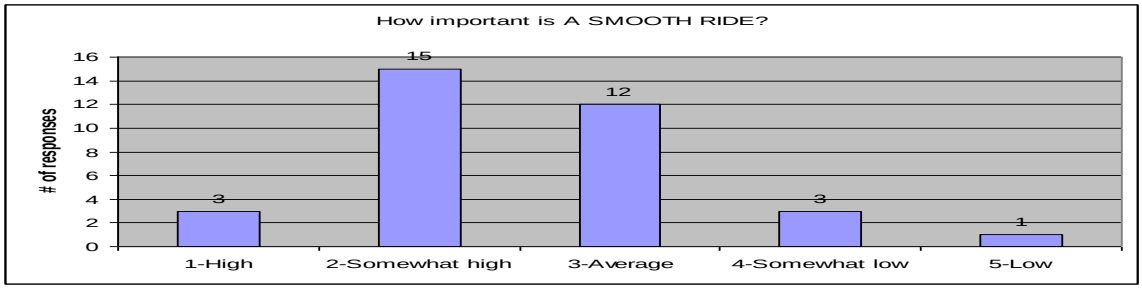
mean:3.69



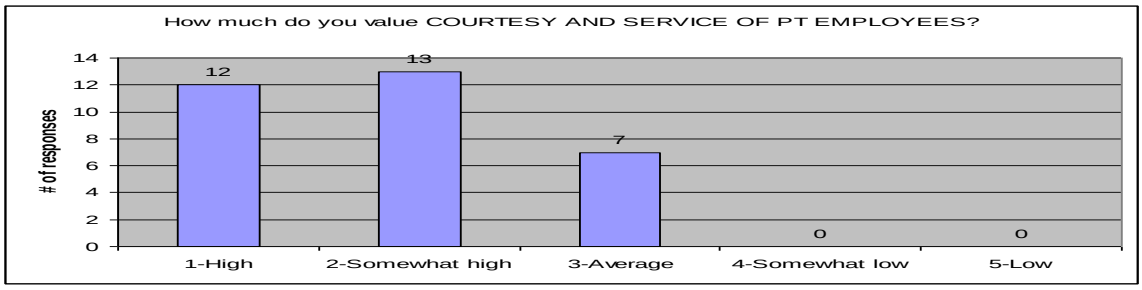
mean:3.25



mean:2.09



mean:2.69



mean: 1.84

D: Survey Questions

1. What year as a student are you?
2. What is your hometown?
3. Public Transportation systems are bus lines, trolley or other "light rail" lines, ferries etc. (ex: SD MTS, SB MTD, BART etc.) And from here on out will be referred to as "PT". How often did you use PT in your hometown?
4. Overall, how satisfied were you with your experience using PT at home?
5. How often do you use PT here in Santa Barbara?
6. Overall, how satisfied are you with your PT experiences here in Santa Barbara?
7. How important is THE CLEANLINESS OF PT VEHICLE EMISSIONS (whether clean or not) in your choice of whether to use PT?
8. How important is HOW OTHER PEOPLE PERCEIVE PT USAGE (as cool or not cool) in your choice of whether to use PT?
9. How important is INFORMATION ABOUT AVAILABILITY OF ROUTES OF PT in your choice of whether to use PT?
10. How important is THE PRICE OF PT in your choice of whether to use PT?
11. How important is QUICKNESS TO GET YOU WHERE YOU WANT TO GO in your choice of whether to use PT?
12. How important is CONVENIENCE (ability to eat, attend to children, do chores like shopping etc.) in your choice of whether to use PT?
13. How important is HOW NEAR A STATION IS TO YOUR HOME (or wherever you need to go) in your choice of whether to use PT?
14. How important is CONNECTIONS TO OTHER MODES OF TRANSPORT (bike racks, airports, parking lots etc.) in your choice of whether to use PT?
15. How important is THE FREQUENCY OF PT ROUTES BEING RUN THOUGHOUT THE DAY in your choice of whether to use PT?
16. How much do you value THE OUTSIDE APPEARANCE OF A PT VEHICLE when using PT?
17. How much do you value THE SCENERY when using PT?
18. How much do you value LISTENING TO MUSIC when using PT?
19. How much do you value CONVERSATION WITH OTHER PASSENGERS while using PT?
20. How much do you value ENTERTAINMENT (television screens etc.) when using PT?
21. How much do you value WIRELESS INTERNET AND COMPUTER PORTS when using PT?
22. How much do you value COMFORT (of seats, of air conditioning etc.) when using PT?
23. How much do you value A SMOOTH (not bumpy) RIDE when using PT?
24. How much do you value COURTESY AND SERVICE OF PT EMPLOYEES when using PT?

References

Bamberg, Sebastian (Sep, 2007). Social context, personal norms and the use of public transportation: Two field studies. *Journal of Environmental Psychology*, 27(3), 190-203. Retrieved January 27, 2008, from PsychINFO database (0272-4944).

Beale, J. R. (Jul 2007). Marketing in the bus industry: A psychological interpretation of some attitudinal and behavioural outcomes. *Transportation Research Part F: Traffic Psychology and Behaviour,* 10(4), 271-287. Retrieved January 27, 2008, from PsychINFO database (1369-8478).

Davidov, Eldad (Aug 2007). Explaining habits in a new context: The case of travel-mode choice. *Rationality and Society,* 19(3), 315-334. Retrieved January 27, 2008, from PsychINFO database (1043-4631).

Duffy, Jim (July 2001). Santa Barbara has the largest electric bus fleet in North America. *Mass Transit,* 27.5, 8. Retrieved March 8th, 2008 from Expanded Academic ASAP database (A77614228).

Faber, Jim (June 2007). Commuters vs. vacationers: transit agencies serve many masters, but how do you appease your commuters while pleasing vacationing riders?. *Mass Transit* 18(4). Retrieved January 29, 2008, from Expanded Academic ASAP database (A165815278).

Gatersleben, Birgitta (May 2007). Affective appraisals of the daily commute: Comparing perceptions of drivers, cyclists, walkers, and users of public transport. *Environment and Behavior*, 39(3), 416-431. Retrieved January 27, 2008, from PsychINFO database (0013-9165).

(July 2006). Transportation: the latest 'hot' benefit. *HR Focus* 12. Retrieved January 29, 2008, from Expanded Academic ASAP database (A151905060).

Kamba, Abdalla Nurdeen, Riza Atiq O.K. Rahmat, and Amiruddin Ismail (July 2007). Why do people use their cars: a case study in Malaysia. *Journal of Social Sciences* 117(6). Retrieved January 29, 2008, from Expanded Academic ASAP database (A168775521).

(May 5, 2007). In a jam; The San Francisco Bay area. *The Economist (US),* 383(8527), 28-38. Retrieved January 27, 2008, from EBSCOEhost Business Source Premier database (0013-0613).

Motavalli, Jim, and Schildgen, Bob. (Jan-Feb 2002) All aboard: good public transportation need not be high tech or high cost. It can be as simple as a bus. *Sierra*, 46(9). Retrieved January 27, 2008, from Expanded Academic ASAP database (A80805041).

MTD Santa Barbara. Retrieved March 8th, 2008 from www.sbmtd.gov/Index.htm.

National Railroad Passenger Corporation (2008). *Inside Amtrak*. Retrieved March 8th, 2008 from http://www.amtrak.com/servlet/ContentServer?pagename=Amtrak/InsideAmtrak

Nichols, Paula (Feb 1994). Los Angeles without traffic jams? It could happen. *American Demographics*, 18(2). Retrieved January 27, 2008, from Expanded Academic ASAP database (A14792214).

Walker, Alissa (Feb, 2007). L.A. GOES PUBLIC. *Fast Company,* (112), 72-78. Retrieved January 27th, 2008, from EBSCOhost Business Source Premier database (1085-9241).

Wright, Laura M. (Fall 2007). L.A. to poor: take a hike. *OnEarth* 51(1). Retrieved January 27, 2008, from Expanded Academic ASAP database (A168921926).

(Sept-Oct 2006). MCI's CRT: a fast, flexible, environmentally-friendly way to ride. *Mass Transit* 50(1). Retrieved January 29, 2008, from Expanded Academic ASAP database (A153425873).