

REGIONAL PUBLIC TRANSPORTATION PLAN for the LEHIGH VALLEY

PREPARED FOR:

**LEHIGH AND NORTHAMPTON
TRANSPORTATION AUTHORITY**

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TRAVEL SURVEYS

Introduction

As part of the Transportation Development Plan for the Lehigh Valley, the consultant team conducted two surveys. The first was a passenger survey of LANTA riders. The second was a mail-out/mail-back survey of Lehigh Valley residents. Both survey efforts provided a description of both manifest and latent demand.

Rider Survey

A passenger opinion survey of LANTA fixed route riders was undertaken during a three week period from April 14 through May 3, 2008. The first two weeks of the survey was conducted on all bus routes based at LANTA's Allentown facility which is located at

1060 Lehigh Street in Allentown; the third week of the survey was conducted on all bus routes based at LANTA's Easton facility which is located at 3610 Nicholas Street in Easton. The survey was conducted on all LANTA fixed bus routes from first pull-out to last pull-in. Nearly 100 percent of all LANTA weekday and weekend trips were surveyed.

A key dimension of the survey was the use of survey workers who rode the LANTA buses and issued and collected survey cards from patrons. Survey workers were instructed to issue a survey card to all boarding passengers.

The survey effort was intended to serve two purposes. First, while survey workers were aboard LANTA buses distributing survey cards, they recorded passenger boarding and alighting activity by bus stop location. This information has been processed in terms of boarding and alighting activity by bus route and by bus stop for both inbound and outbound directions; this ridership information will be used in developing service improvement recommendations and will also be submitted to LANTA for their continuing use.

The second component was a survey questionnaire that gave riders an opportunity to provide input on LANTA services and ideas for service change proposals. This section describes the conduct and content of the survey.

Survey Method - Due to the participation of the survey workers, a major effort was undertaken before the survey to assure a complete understanding of the survey procedures. Survey workers were required to attend a training session at which the survey procedures were explained in detail. On each day of the survey, survey workers were issued a survey kit that included a supply of survey cards and pencils. The survey materials were placed in an envelope that also contained survey instructions.

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Survey cards were issued to all fare paying and senior citizen passengers who boarded the buses. Riders were provided the option to complete the survey card while on the bus or to take the card with them to complete it later. If the rider did not complete the survey card while on the bus trip they were issued the card, they could return it to any other survey worker or a bus driver on a subsequent trip. The survey forms were printed on hard card stock paper to make writing easier for passengers while riding the bus. The survey workers provided pencils to riders who did not have their own writing instrument. Riders were also instructed to complete only one survey during the survey period.

Survey Questions - The survey form, shown in the Appendix, consisted of 19 questions. With the exception of two open-ended questions, riders were only required to check off a box to answer most questions. For the first group of questions, the rider provided a travel itinerary which included questions related to what bus route they were on when they received the survey, how bus stops were accessed, the type of fare that was paid to ride the bus, length of time riding, trip purpose, and the frequency of riding. The next group of questions requested attitudinal information regarding their view of the existing bus service and potential improvements, as well as included questions regarding public information and

changes in riding habit. The final group of questions focused on socioeconomic characteristics of the respondent. These questions asked for information pertaining to key factors influencing travel habits including age, automobile ownership, automobile availability and family income.

Survey Response - During the survey period, about 5,500 survey forms were issued and a total of 2,389 valid surveys were returned. This is a response rate of about 43 percent which is relatively high for this type of survey. Typically, response rates vary between 20 and 25 percent.

Survey Results

After the completion of the survey, responses from the 2,389 completed surveys were tabulated. Responses for the Allentown and Easton riders were evaluated separately. Results from each of the survey questions are presented in this section of the report. Only valid responses have been presented on a percentage basis with extraneous or no responses eliminated.

LANTA operates nearly three dozen separate bus routes from its two operating divisions (i.e., Allentown and Easton). For the most part each bus route operates from a single garage, although a few lines provide service from two garages. The bus routes originating in Allentown are oriented primarily to Allentown and Bethlehem while the Easton based routes serve mostly Easton. Accordingly, the survey results were stratified by garage location as a convenient surrogate measure for service areas. It should be noted that for most questions, the responses for the Allentown and Easton based routes were similar.

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Bus Route - Riders were asked to identify on what route they received a survey card. As shown in the table below, there were seven Allentown routes and six Easton routes that provided five percent or more of the total responses for each division.

- A
- B
- C
- D
- E
- F
- G
- H
- J
- S
- 2

--
 --
 16.6
 --
 6.6
 5.7
 7.9
 8.3
 --
 6.4
 --
 13.0
 12.4
 --
 9.9
 5.9
 --
 7.3
 --
 5.3
 --

Mode of Access - As seen in the table below, about 73 percent of Allentown riders and almost 76 percent of Easton riders walk to the bus stop to access their bus. Of this group of riders, over two thirds walked three blocks or less to reach LANTA fixed route bus service. This represents a relatively short walking distance for most LANTA riders.

Another Bus
 Walked

Walked 1 block or less
Walked 2 blocks
Walked 3 blocks
Walked 4 or more blocks
Subtotal

Drove car
 Dropped off in car
 Bike
 Other

20.81
 73.47
Subgroup

29.2
26.1
14.1
30.6
100.0
0.46
2.50
1.31
1.44

18.00
75.91
Subgroup
42.3
26.2
9.7
21.8
100.0
0.73
2.31
1.58
1.46

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Approximately 21 percent of Allentown riders and 18 percent of Easton riders indicated that they accessed the bus they were on by transferring from another LANTA bus. Those riders who transferred from another LANTA bus were asked to identify the route from which they transferred. The table below shows the Allentown and Easton bus routes on which more than five percent of the survey respondents who indicated they had transferred from another LANTA bus. In Allentown, routes G and D exhibited the highest rates of passengers who had transferred from another LANTA bus, while the highest transfer rates among Easton riders occurred on routes E and F. These routes operate in the urban core and are among the busiest routes in the LANTA system.

- A
- B
- D
- E
- F
- G

H
K
P

6.28

--

13.81

9.21

7.95

21.76

7.53

10.04

--

9.71

9.71

10.68

19.42

18.45

10.68

--

--

6.80

Mode to Complete Trip - Riders were asked to identify how they would complete their trip after leaving the bus. They were given several choices from which to select their response. As in the previous question, one possible response was "walk", which if selected, the rider was asked to list the number of blocks. Responses are listed in the table on the following page. Approximately 70 percent of Allentown and Easton riders walk to their final destination after they leave the LANTA bus. This is slightly lower than the percent of riders who walk to access the bus. The distances that Allentown and Easton riders walk to complete their trip is similar to the distances walked to access the bus. Over three-quarters of the survey respondents, who walked to the bus, had to walk three blocks or less to complete their trip. This represents a short walking distance for most LANTA riders.

Approximately one-quarter of the survey respondents indicated that they will use another LANTA bus to complete their trip. This is higher than the percentage of riders in Allentown (20.81%) and Easton (18.00%), who transferred from another bus to the bus where they were handed a survey from a survey worker.

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Another Bus
Walked

Walked 1 block or less
Walked 2 blocks
Walked 3 blocks
Walked 4 or more blocks
Subtotal

Drove car
 Picked up in car
 Bike
 Other

26.04

68.34

Subgroup

39.9

22.1

14.9

23.1

100.0

0.47

2.14

1.34

1.67

23.14

71.29

Subgroup

40.1

24.5

11.7

23.8

100.0

0.62

1.36

1.49

2.10

Those riders who transferred to another LANTA bus were asked to identify the route that they transferred to. The table below shows the Allentown and Easton bus routes on which more than five percent of survey respondents indicated they would transfer to another LANTA bus to complete their trip. In Allentown, routes D and H exhibited the highest rates of riders who indicated they would transfer to another LANTA bus, while the highest rates among Easton riders occurred on routes F and G.

A
B
C
D
E
F
G
H
J
K

10.74
5.93
--
11.85
7.41
9.63
7.78
15.56
7.78
5.93

13.0
5.0
7.0
7.0
13.0
15.0
14.0
5.0
--
--

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Fare Payment - The next question asked the survey respondent what type of fare payment method was used to ride LANTA. As shown in the table below, approximately one-third of the Allentown and Easton riders indicated that they use the Day Pass when riding LANTA, while about one quarter of the riders pay a cash fare. It is somewhat surprising that the free senior fare elicited a relatively low response rate since senior citizens typically comprise a large portion of a transit system's ridership base.

Seniors - Free
Cash
Day Pass
31 Day Pass
10 Ride Ticket
40 Ride Ticket
Transfer
Student Fare
Disabled Day Pass
Other

7.32
24.97
34.97
13.20
10.33
2.03
1.57
2.22
2.81
0.59

10.19
26.58
32.04
13.59
7.40
2.55
1.94
0.97
3.64
1.09

Length of Time Riding LANTA - The next question asked how long the passenger has been riding LANTA buses. As can be seen in the accompanying table, approximately 43 percent of the Allentown and Easton riders have been riding for *five years or more*. This percentage exceeds that of other transit systems surveyed by the consultant where the number of riders who have been riding the bus for more than five years generally comprises less than one-third of the total ridership base. In addition, approximately 21 percent of Allentown and Easton riders have been riding for *less than one year*. This indicates that transit ridership in the Lehigh Valley is not stable and experiences significant turnover, that is, each year some people stop riding while others become new riders. This emphasizes the need to continually provide public information on transit services and perform marketing activities to attract new riders or retain current riders.

Less than one year
1-2 years
3-4 years
Five years or longer

21.24
19.22
16.67
42.88

20.80
18.00
18.49
42.70

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Frequency of Use - The next question asked how many trips the passenger makes on LANTA services in a week. The table below shows that nearly 48 percent of the Allentown survey respondents and approximately 43 percent of Easton riders travel on LANTA *ten or more* times a week. On a typical service day, only about four percent of Allentown riders and six percent of Easton riders are infrequent riders, or those who make *one trip or less* per week.

0
1
2
3
4
5
6
7
8
9
10
11
12+

0.98
2.94
6.60
5.29
6.92
12.21
6.60
4.64
4.90
1.24
16.59
2.55
28.54

1.84
4.30
7.25
5.90
8.11
9.58
8.11
5.41
4.42
1.84
12.41
1.11
29.73

Trip Purpose - Riders were asked to identify the purpose of the trip they were making the day they received a survey from a survey worker. The table on the following page shows that *work* is the most common trip purpose among the survey respondents and comprises nearly 50 percent of Allentown riders and about 36 percent of the Easton riders. This is consistent with the fact that a high number of survey respondents (48% Allentown and 43% Easton) ride LANTA at least 10 times per week. Those traveling to and from work tend to make two one-way trips on several days throughout the week. *Shopping* is the second most common weekday trip purpose among Allentown and Easton riders representing about 13 percent and 26 percent of the trips, respectively. *Personal business* was the third most common trip purpose among the survey respondents (11.84% for both Allentown and Easton), with the school being the fourth most common trip purpose among the Allentown (11.90 %) and Easton (8.94 %) riders.

School
Work
Shopping
Personal Business
Medical/Dental
Social/Recreation
Other

11.90
51.50
12.86
11.84
4.76
3.54
3.61

8.94
35.89
26.07
11.84
5.67
5.79
5.79

Service Evaluation - The next question asked riders to rate the performance of LANTA in ten categories. The table on the following page provides a breakdown of the responses for Allentown based bus services. The table shows that differences occur between the specific responses in the various categories. For example, *"telephone customer service"* receives the smallest percentage of excellent responses (19.28 %) with *"driver courtesy"* receiving the largest percentage of excellent responses (35.78 %). For this type of survey, a response is considered favorable if the combined total of responses in the excellent, very good or good categories is greater than or equal to 90 percent of all responses, although 85 percent and above is an acceptable threshold.

The table shows that the Allentown riders did not give LANTA a 90 percent favorable rating for any of the ten categories. The closest any category came to attaining the 90 percent threshold was *"system safety"*, which received a total score in the excellent, very good and good categories of 89.64 percent. The other category that was close to the 90 percent threshold was *"printed information"*, which received a total score in the excellent, very good, and good categories of 88.19 percent. The category that received the lowest score was *"telephone customer service"* with 74.69 percent. Generally, any category with a

favorable rating below 85 percent should be an area of concern for LANTA. Overall, only three of the 10 categories received a score of 85 percent or higher from the Allentown riders.

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9.42

9.51

10.78

9.81

11.61

11.53

11.96

12.01

13.58

14.19

82.28

78.73

81.76

84.68

89.64

88.19

81.15

74.69

82.51

85.59

Buses running on time

Vehicle Cleanliness

Value received for fare charged

Driver Courtesy

System Safety

Printed information

Places Served

Telephone customer service

Website Information

Overall Satisfaction

28.66
22.23
29.72
37.81
35.19
29.75
25.20
22.31
25.56
28.10

44.20
46.99
41.26
37.06
42.84
46.91
43.99
40.37
43.37
43.30

14.49
18.19
14.86
12.60
9.39
10.20
15.23
18.21
14.22
12.04

3.23
3.08
3.39
2.72
0.97
1.62
3.63

7.09

3.27

2.37

The table below shows the service evaluation results for the Easton riders.

Buses running on time

Vehicle Cleanliness

Value received for fare charged

Driver Courtesy

System Safety

Printed information

Places Served

Telephone customer service

Website Information

Overall Satisfaction

28.97

22.57

30.30

36.80

35.03

31.87

26.53

23.78

28.85

28.35

40.95

40.40

36.20

33.79

40.61

40.39

39.01

35.05

36.17

39.43

9.90
9.98
12.58
12.64
12.06
12.65
12.74
10.99
15.70
15.34

79.82
72.95
79.08
83.23
87.70
84.91
78.28
69.82
80.72
83.12

16.01
21.57
16.05
12.89
10.15
12.26
16.25
21.28
13.90
13.92

4.16
5.49
4.88
3.88
2.16
2.84
5.46

8.90
5.38
2.96

Easton riders gave LANTA lower favorable ratings compared to the ratings provided by Allentown riders. Once again, none of the ten categories attained a 90 percent favorable rating with "system safety" receiving the highest score of 87.70 percent. "Telephone customer service" received the lowest favorable rating of 69.82 percent, and is an area that warrants attention by LANTA due to the fact that this category also had the lowest favorable rating among the Allentown riders.

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The results of this question convey an overall level of dissatisfaction with LANTA services among its riders. None of the categories attained a 90 percent favorable rating, and only one category (i.e., *system safety*) attained a favorable rating of at least 85 percent from both groups of riders. All of these service attributes could be improved through LANTA policy changes or service improvement recommendations to be developed as part of this study process.

Quality of Service Trend - The next question asked riders to answer whether or not LANTA bus service has improved during the past year. As shown in the table below, about 48 percent of Allentown riders and about 41 percent of Easton riders responded that service is *getting better*, while nearly 45 percent of Allentown riders and almost 50 percent of Easton riders said service *stayed about the same*. Less than 10 percent of the Allentown and Easton riders indicated that service is *getting worse*. Overall, this is a favorable response from the riders regarding the performance of LANTA.

Getting Better
Getting Worse
Staying About the Same

47.84
7.24
44.92

40.67
9.78
49.55

Best Sources for LANTA Information - To assist LANTA in their efforts to market new or existing services, the survey asked riders to indicate the best way for LANTA to

reach them with information. The riders were given several options to choose from and were asked to identify as many as three choices. The table on the following page provides the results from this question. The table shows that *bus schedules, drivers, and LANTA customer service* are the three most common sources of information for both Allentown and Easton riders. The other information sources received only modest responses from the riders. The fact that the riders indicated LANTA bus schedules as their primary information source for LANTA service, coupled with the fact that LANTA's internet website elicited a low response rate, shows how important it is for LANTA to distribute their schedules throughout the community as well as to ensure that schedules are available on the buses and at the ATC in downtown Allentown. Moreover, these materials must readily convey how to use the system for infrequent and new riders.

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Bus Schedules

System Map

Drivers

Radio/TV

Calling LANTA

Newspapers

Word-of-mouth

Notices on Buses

Phone Book

Internet: LANTA Website

Other

42.24

7.01

13.17

1.65

12.38

1.18

5.92

6.54

0.39

8.74

0.78

40.14

8.00

15.72

1.52
9.19
1.45
6.48
6.76
1.03
8.69
1.10

Riding Trend - Riders were asked how the frequency at which they are currently riding LANTA compares with the previous year. The table below indicates that almost one-half of the Allentown and Easton riders are riding *more* compared to the same time last year, while roughly 10 percent of the riders answered *less*. In addition, about one-third of the riders are riding *about the same* amount as last year, while approximately 10 percent of the riders indicated that they are *new* riders.

More
Less
About the Same
I Am a New Rider

46.05
8.10
37.82
8.03

44.95
10.34
34.36
10.34

Extent of Transit Dependency - The next series of questions related to the dependency of LANTA riders on transit service. This series of questions helps to determine the level at which LANTA's ridership base is made up of discretionary (i.e., choice riders) or non-discretionary (i.e., captive) riders. A ridership base that is heavily transit dependent indicates that only certain population groups are using the service rather than a broad cross-section of the population in the service area.

The first of these questions asked riders to indicate whether or not they could have made their trip if transit service were not available. The table on the following page shows that approximately 13 percent of the Allentown and Easton riders indicated that they could have made the trip without LANTA bus service, with over one-half of the riders stating that they could not have made the trip without LANTA.

The remaining 27.41 percent of Allentown riders and 29.10 percent of Easton riders said that they could have made the trip without LANTA service, but it would be inconvenient. These results indicate that, based on the rider survey, LANTA serves a captive ridership base.

Yes

No

Yes, but with inconvenience

13.24

59.36

27.41

13.44

57.46

29.10

The next question designed to further gauge the level of transit dependency among LANTA riders asked whether or not the rider has a valid driver's license. The table below indicates that two thirds of the Allentown and Easton riders do not have a valid driver's license. This is consistent with the response to the prior question regarding the ability to make a trip without using LANTA bus service.

Yes

No

33.06

66.94

32.66

67.34

The final question in the transit dependency area requested information regarding the number of automobiles owned by the rider's household. As shown in the table below, approximately three-quarters of the Allentown and Easton riders have no more than one car. This is another indicator of the high level of transit dependency among the riders who

participated in the survey and the different ridership composition in comparison to Lehigh County and Northampton County residents as measured by the 2000 U.S. Census.

None
One
Two
Three or more

46.89
27.60
15.54
9.98

51.25
24.63
15.13
9.00

9.62
35.52
39.92
17.94

This series of questions consistently demonstrated that a solid majority of the riders could be considered transit dependent in the traditional sense, and is consistent with the level of transit dependency found at other similar size transit systems.

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Socioeconomic/Demographic Measures - The final series of questions concerned the socioeconomic and demographic characteristics of the rider. Whenever possible, the responses of the bus riders were compared to those of the general public utilizing the 2000 U.S. Census.

The first of these questions asked the rider to identify the age group in which they belong. The table below provides the breakdown of Allentown and Easton riders compared to the results from the resident survey. The highest single age group among the Allentown and Easton riders is the *35 to 54 years old* range with 32.25 percent and 28.15 percent of the riders, respectively. These rates are similar to that age group from the resident survey where 35 to 54 year olds comprised 30.64 percent of the survey responses. The percentage of Allentown and Easton riders 55 to 64 is also comparable to the overall Lehigh Valley population made up by this age group.

Under 18
18 to 24
25 to 34
35 to 54
55 to 64
65 and Above

8.79
24.12
19.04
32.25
9.05
6.74

10.77
23.87
18.97
28.15
8.45
9.79

23.60
8.60
12.44
30.64
8.97
15.76

The percentage of Allentown and Easton riders who are under 18 or 65 and above is lower than these population groups for the Lehigh Valley as a whole. This is due to the fact that those under 18 can use school bus transportation to travel to and from school. The relatively low numbers of senior citizen riders may be attributed to the fact that seniors are eligible to ride the LANTA demand responsive program which provides door-to-door service.

Gender - As shown in the table below, Riders were then asked to identify their gender. According to the survey results, a majority of LANTA's riders are female, and is comparable to the population of Lehigh and Northampton Counties. A significant female majority is typical of the make-up of the ridership base at most transit systems which is also the case at LANTA as indicated by these findings.

Male
Female

45.77
54.23

42.50
57.50

48.44
51.56

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Household Income - Riders were then asked to note their family income. The survey provided a series of income ranges and riders were asked to mark the most appropriate box. Approximately 16 percent of the survey respondents from the Allentown and Easton surveys chose not to answer this question. For those that did respond, the table below summarizes the results. Allentown and Easton riders have total annual family incomes that are much lower compared to the overall percentage of Lehigh County and Northampton County households earning under \$10,000.

Less Than \$10,000
\$10,000 to \$24,999
\$25,000 to \$39,999
\$40,000 to \$54,999
\$55,000 to \$69,999
\$70,000 and Above

21.99
30.56
20.31
6.45
2.71
2.51

24.94
27.68
19.21
5.85
2.74
3.58

7.31
18.68
18.88
20.63*
11.82*
22.67*

* The 2000 U.S. Census income brackets are different than the income brackets listed on the survey cards. Also, the results from the 2000 U.S. Census have not been adjusted for inflation.

Nearly one-quarter of Allentown and Easton survey respondents have an annual median family income of \$10,000 or lower, while only 7.31 percent of the population in the two county LANTA service area falls into this income bracket. Second, almost 23 percent of the households in the two-county LANTA service area earn more than \$70,000, which represents a much higher percentage compared with the results from the Allentown and Easton survey results of 2.51 percent and 3.58 percent, respectively. The results clearly indicate that LANTA's ridership is drawn from lower income groups. This disparity is even greater when considering inflation between the results from the 2000 U.S. Census and the 2008 survey.

Occupation - The next question asked riders to provide their occupation, with the survey listing nine possible job categories to choose from; three of the occupation categories included retired, unemployed and other. As shown in the table on the following page, the most frequently cited occupation from the Allentown and Easton riders was *student*, which garnered 19.05 percent and 22.32 percent of the responses, respectively. The next most frequently cited occupation was *other*, which was selected by almost one-quarter of the Allentown and Easton riders. The third most selected occupation for the Allentown riders was technical/skilled (11.96%), while Easton riders selected retired (11.60 %). Overall, all of the occupations that were listed on the survey were selected by the Allentown and Easton riders, and indicates that LANTA serves a cross-section of the Lehigh Valley population.

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Student
Manager/Professional
Technical/Skilled
Clerical
Service
Homemaker
Retired
Unemployed
Other

19.05
9.19
11.96
5.74
11.49
4.26
7.57
7.30
23.45

22.32
6.61
8.35
3.99
9.23
6.23
11.60
8.85
22.82

LANTA Improvements - The final question was an open-ended query that asked the rider to provide comments and suggestions that they think would improve LANTA service. A total of 817 comments were received from the Allentown riders and 413 by the Easton riders, representing approximately 53 percent of Allentown riders and 49 percent of the Easton riders. This is a significantly high rate of response given the open-ended nature of the question and clearly indicates the areas of concern among the riders. The two tables shown on the following page are the comments and suggestions that were identified by five or more Allentown and Easton riders.

The first table shows the comments and improvement suggestions provided by the Allentown riders, and shows that *more frequent service* (152 responses) is the most important improvement among the riders who provided input to this question. The next highest response related to *more service to different places* (110 responses) followed by *later evening service* (104 responses). In addition, a significant number of riders suggested *improving on time performance* (92 responses) and providing *more weekend service* (87 responses). In addition, a significant number of riders indicated that the riding experience should be improved, with comments and suggestions relating to *friendlier and more professional drivers* (86 responses), *newer and more comfortable buses* (25 responses), *cleaner buses* (14 responses), and *keeping strollers out of the isles* (6 responses).

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Allentown Improvements

More frequent service
More service to different places
Later evening service
Better on time performance
More weekend service
Friendlier/more professional drivers
Lower fares/don't raise fares
Better public info/customer service
Newer buses/more comfortable buses
Cleaner buses
24 hour service
Service should start earlier
More public amenities (i.e., shelters, benches, vending machines)
Passengers need to fold strollers

152
110
104
92
87
86
53
30
25
14
11
8
8
6

The comments and suggestions provided by the Easton riders were similar to the input provided by the Allentown riders. As shown in the table below, *later evening service* (75 responses) was the most important improvement suggestion among Easton riders, which was followed by *more frequent service* (65 responses), and *lower fares/don't raise the fares* (55 responses). Again, comments and suggestions relating to the riding experience garnered several comments, including *friendlier and more professional drivers* (37 responses), *cleaner buses* (10 responses), and *uncomfortable and overcrowded buses* (nine responses).

Easton Improvements

Later evening service
More frequent service
Lower fares/don't raise fares
More weekend service
Better on time performance
More service to different places
Friendlier/more professional drivers

Better public info/customer service
Cleaner buses
Uncomfortable buses/overcrowding
24 hour service

75
65
55
54
40
37
37
11
10
9
7

The comments and suggestions that were cited by the Allentown and Easton riders indicate major issues of concern for the riders.

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Summary - The survey results presented in this section comprise a timely input to the planning process. It indicates how trips are made, who the riders are and their views on various transit issues. Key findings from the rider survey include the fact that LANTA's ridership base is comprised of lower income households with no automobiles when compared to all residents for Lehigh and Northampton Counties. Most of the riders are considered captive since they do not have a car available for their trip and either utilize LANTA bus service, get a ride or don't make the trip.

LANTA affords mobility to a number of residents for a variety of trip purposes. Most riders use a single bus to complete their trip, with about one-quarter of the riders transferring between buses. While work is the primary trip purpose, many riders use the bus system for shopping and personal business. Although many of the riders having been using the bus system for more than five years, a significant number have been riding LANTA for less than six months. This demonstrates the need for continued public information and marketing efforts. The results of the survey also indicate that riders are not satisfied with various attributes of LANTA service.

Riders were also provided an opportunity to indicate suggested improvements to the bus system. Most comments related to the level of service in terms of greater frequency and longer hours of operation.

Resident Survey

Another key data collection element of the LANTA Regional Public Transportation Development Plan is to quantify the attitudes of the general public. For the most part, these are people who do not ride the bus system or only ride infrequently. It was determined that a mail-out/mail-back survey would be the most appropriate method to gather this data from

residents. This technique allows residents to complete the survey questionnaire at their convenience without facing an interruption associated with a telephone survey. The process involved several steps that were performed both prior to and after the conduct of the mail-out/mail-back survey. Each of these topics, including questionnaire development, sample selection, and the coding of the results are discussed below. DHF Associates, a professional direct mail communications firm located in Lancaster, Pennsylvania, was used to develop the random survey sample, as well as package and mail out the surveys.

The initial step in survey preparation was drafting survey questions. For some questions, all possible responses were identified, while other questions were open-ended. The amount of information to be gathered was weighed against the length of the survey form. Typically, longer questionnaires result in a reduced response rate. The questions were developed in cooperation with LANTA staff. The development of the survey instrument considered the screening to include only adult residents, the topics to be covered, and the questions to obtain the necessary information. The form used in the mail-out/mail-back survey is included in the Appendix, along with a copy of the letter that was sent to each resident advising them of the survey and informing them of the importance of their response.

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Sample Selection - The object of the survey was to obtain a sufficient sample size of residents that results in acceptable accuracy. The goal for the survey was to obtain enough valid survey returns to allow for a five percent allowable error rate at a 95 percent confidence interval, which would require approximately 400 valid returns. The survey actually obtained 546 valid survey forms, which demonstrated the statistical adequacy of the survey effort. Based upon the relationship between sample size and error, the survey has an allowable rate of about four percent at a 95 percent confidence interval. The implication of this relationship is that the survey measure of an attribute (e.g., personal use of public transportation service), plus or minus four percent, will include the actual measure of the attribute in the study area 95 percent of the time. In essence, this defines how close the survey results from a sample of adult residents are to those that would have been obtained if all adults in Lehigh and Northampton Counties had been surveyed.

The next important step in the conduct of the survey was the selection of a random sample. The requirement of randomness is that the probability of selecting a particular household be equal for all households in the study area. Households to be sampled were determined from a random sample of households selected by a professional direct mail communications firm from a database of all addresses located within two distinct areas. The first area included nine zip codes that are located within the LANTA core service area, which encompasses portions of the Allentown-Bethlehem-Easton urbanized area.

The second area includes the portions of Lehigh and Northampton Counties that are not located within the core service area and are predominately suburban or rural in character and have little or no bus service. For each area, the actual mail-out/mail-back questionnaire was mailed to a sample of 1,500 residents on May 13, 2008 and was to be returned by mail in a prepaid envelope that was provided in the letter by May 31, 2008. The survey

questionnaire was the same for the core and non-core survey areas. The response rate of 546 for both areas combined versus the 3,000 mailed is 18.2 percent. This was within the target of 15 to 20 percent (450 to 600 responses), which is the typical response rate for mail-out/mail-back surveys.

Coding - The number of surveys judged to be valid was determined by carefully examining each survey form for accuracy and consistency. Those deemed invalid were discarded. The next step was to convert all responses to codes for subsequent computer processing. The survey form included in the appendix was used to identify appropriate codes for each question. The coded data were then processed for each question. The subsequent sections present the results and key findings of the survey.

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Survey Results - This section presents the results for the 18 questions that were asked in the resident mail-out/mail-back survey. An analysis of the results of each question is provided along with a discussion of the significance of the findings. The results are stratified by the level of transit service provided by LANTA (i.e., LANTA core area and non-core area).

Personal Use of Public Transportation - The first question of the survey asked if the survey respondents have used LANTA bus services within the past year. As shown in the table below, approximately one quarter of the core area respondents and about eight percent of the non-core respondents have used LANTA in the past year. The sample of residents that responded to the survey includes mostly individuals who do not ride LANTA (i.e., latent demand).

Yes
No

26.34
73.66

7.91
92.09

Household Use of Public Transportation - The second question asked if a member of the respondent's household uses LANTA services once a month or more. As shown in the table below, approximately 20 percent of the core area respondents have a member of their household who does use the service at least once a month compared to a rate of about eight percent for the non-core area. The responses to this question and the prior one for the non-core area indicate that the sample is representative of non-transit users. While the majority of

residents living in the core area do not ride the bus, it does include some LANTA patrons.

Yes
No

20.23
79.77

7.89
92.11

Proximity to Public Transportation - The next question asked how close the respondent lives to one of LANTA's bus routes. This question is important in determining how much of the service area's population is within reasonable walking distance of LANTA services. As shown in the table on the following page, approximately 59 percent of the respondents living in the LANTA core service area live within an acceptable five minute walk of a LANTA bus, and only about 15 percent of the respondents do not know where the nearest LANTA bus stop is to their home. Only about 25 percent of the respondents who live outside of the LANTA core service area live within a five minute walk of a LANTA bus, which is not surprising considering that LANTA provides limited service to the communities

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located outside of the core service area. Further, the service that is provided outside of the core area is typically operated along major corridors rather than through residential areas.

On route
5 minutes or less
10 minutes or less
Further than 10 minutes
Don't Know

18.08
40.77
14.23
12.31
14.62

4.04
20.96
14.71
23.53
36.76

Importance of Bus Service to the Community - The fourth question of the survey asked respondents how important local bus service is to the residents of their community. This question encourages respondents to not only think about their needs, but to take into consideration the community as a whole. The table below shows that over three quarters of the core area responding population felt that bus service is important (the total of *very important*, *important*, and *somewhat important* responses) to their community. Only about five percent felt that bus service is not important, while an additional 18.70 percent indicated that they did not know. The results also show that even in the portions of both counties that do not receive LANTA service or receive a limited amount of bus service, nearly two-thirds of the respondents indicated that bus service is important. In other similar surveys conducted by the consultant, response rates for those stating that service is *not important* varied between 1.7 and 27.7 percent, with an average of about 13 percent. Lehigh County and Northampton County residents view public transportation along similar lines as the respondents from these other communities.

Very Important
Important
Somewhat Important
Not Important
Don't Know

44.66
24.43
7.63
4.58
18.70

24.36
23.64
12.00
13.45
26.55

Reasons for Not Using Public Transportation - The fifth question asked for those people who have not used LANTA services to check off the reasons why they have not used the service. Those who have used LANTA were asked to skip the question. The table below details the response for the core area respondents.

Core Area

92.73

28.43

36.22

44.81

18.27

36.84

53.57

62.44

14.87

20.67

64.68

56.52

7.27

71.57

63.78

55.19

81.73

63.16

46.43

37.56

85.13

79.33

35.32

43.48

I have a car available

I don't live near a bus stop

No service to where I want to go

No service when I want to go

I don't like traveling with strangers

Bus service is too slow

I don't like waiting for a bus

I don't have information on service

I don't feel safe on a public bus
Bus service fares are too expensive
I make multiple stops on my trips
I am unfamiliar with the bus
service and how to use it

100.0
100.0
100.0
100.0
100.0
100.0
100.0
100.0
100.0
100.0
100.0
100.0

The table indicates that nine out of ten core area respondents who had not used LANTA had access to a car, by far the largest reason as to why people do not use LANTA. In addition, approximately two-thirds of the respondents make multiple stops on their trips, precluding them from using LANTA, as well as don't have information on LANTA service. The high number of people who don't have information on LANTA service is further demonstrated by the fact that almost 57 percent are unfamiliar with the bus service and how to use it.

On the positive side, almost 82 percent of the respondents living within the LANTA core service area feel that buses are a safe mode of transportation, and a similar percentage of respondents indicated that they don't mind traveling with strangers.

As shown in the table on the following page, nearly all of the non-core area survey respondents indicated they drive rather than ride LANTA, which was by far the largest reason as to why this group of respondents do not use LANTA. Other reasons with a high number of respondents agreeing with the statement include nearly three-quarters who don't have information on service and who are unfamiliar with the bus service and how to use it.

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On the positive side, over three-quarters of the respondents living outside the LANTA core service area indicated that they don't have a problem traveling with strangers, think LANTA buses are a safe mode of transportation, and feel that LANTA charges a reasonable fare to its customers.

Non-Core Area

I have a car available
I don't live near a bus stop
No service to where I want to go
No service when I want to go
I don't like traveling with strangers
Bus service is too slow
I don't like waiting for a bus
I don't have information on service
I don't feel safe on a public bus
Bus service fares are too expensive
I make multiple stops on my trips
I am unfamiliar with the bus
service and how to use it

96.92

62.13

54.50

53.96

13.39

32.04

40.63

74.90

14.80

14.58

67.38

72.27

3.08

37.87

45.50

46.04

86.61

67.96

59.38

25.10

85.20

85.42

32.62

27.73

100.0

100.0

100.0
100.0
100.0
100.0
100.0
100.0
100.0
100.0
100.0
100.0

Overall, the responses from both groups of respondents indicate that the biggest reason why the respondents don't use LANTA is because they have access to an automobile. However, a significant number of respondents from both areas indicated that they are not well informed about how to use or access LANTA service, which may have an effect on the large number of people deciding to drive rather than ride LANTA. This is important because a large number of respondents from both areas think the buses are safe and have no problems riding with strangers, which seems to indicate that the respondents are not averse to riding LANTA buses.

Are Gasoline Prices Affecting Travel Habits - The next question asked the respondent if the higher price of gasoline has affected the way they travel. As shown in the table on the following page, the majority of respondents from both areas indicated that they are traveling less; a small minority of respondents has switched to public transit, and a slightly larger number are considering switching to transit.

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19.84
64.98
8.56
2.72
3.89

17.39
71.74
5.43
0.72
4.71

No Affect

Traveling Less
Might Switch to Transit
Have Switched to Transit
Don't Know

Effect of Rising Gasoline Prices on Transportation Choice - The next question is related to the prior question and is more direct in that it asks the resident if the price of gasoline increasing to \$4.00 per gallon would influence them to utilize or increase their utilization of LANTA services. It should be noted that when the survey was conducted in early spring of 2008, gasoline prices ranged between \$3.25 and \$3.50 per gallon. As seen in the table below, about half of the respondents from both areas indicated that they would possibly utilize or increase their utilization of LANTA bus services. This is a substantial finding that could have a major impact on LANTA services in terms of ridership increases. Also, it should be recognized that these results are non-commitment responses and that many respondents who indicated they would ride, will not use LANTA. On the other hand, approximately one-third of the respondents indicated that higher gasoline prices would not influence them to utilize LANTA bus service.

Yes
No
Maybe
Don't Know

20.87
30.31
35.43
13.39

20.14
36.33
30.22
13.31

Factors Influencing Public Transportation Use - The eighth question in the survey offered a variety of influencing factors and asked the respondent how important each factor was in getting them to use the service or to increase their use of the service. The response to these factors will give some insight into which area's need to be improved for use of the service to increase. The table on the following page details the response to these factors provided by the core area respondents.

Service closer to my home
Service closer to my work
Service closer to shopping
More frequent service
More information about existing service
Reasonable cost of the service
Having more evening service
Having more Saturday service
Having Sunday service
More door-to-door service
More park-n-ride service
Core Area

49.38

40.64

39.57

45.69

44.73

49.15

32.17

33.04

32.30

23.66

30.04

27.98

17.81

31.91

31.90

36.29

35.59

34.35

32.17

28.32

29.91

33.63

22.63
41.55
28.51
22.41
18.99
15.25
33.48
34.78
39.38
46.43
36.32

100.0
100.0
100.0
100.0
100.0
100.0
100.0
100.0
100.0
100.0
100.0

The most important factor for potential riders residing in the core service area to use the service, or for current riders to increase their use of LANTA, was a *reasonable cost of the service*, having approximately 85 percent of the "very important" and "important" responses. The second highest response was for *more information about existing service* at 81 percent followed by *more frequent service* with 78 percent of the "very important" and "important" responses. Again, having more information about LANTA was noted as an important issue with respondents. Approximately 46 percent indicated that *more door-to-door service* would not influence them to use LANTA more often. Further, about 42 percent indicated that *service closer to work* was not important.

The table on the next page shows that the most important factor for potential riders residing outside of the core service area to use the service, or for current riders to increase their use of LANTA, was for a *reasonable cost of the service*, having approximately 85 percent of the "very important" and "important" responses. The second highest response was for *more information about existing service* at 84 percent followed by *service closer to home* with 78.82 percent of the "very important" and "important" responses. Again, having more information about LANTA was noted as an important issue with respondents. About one-

half of the respondents indicated that *Sunday service, more door-to-door service, and service closer to work* would not influence them to use LANTA more often.

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Non-Core Area

54.51

39.73

38.37

46.86

52.59

49.19

24.14

25.75

22.61

25.94

33.20

24.31

19.20

34.69

31.38

31.47

35.77

38.36

37.34

32.61

32.64

39.42

Service closer to my home

Service closer to my work

Service closer to shopping

More frequent service

More information about existing service

Reasonable cost of the service

Having more evening service
 Having more Saturday service
 Having Sunday service
 More door-to-door service
 More park-n-ride service

21.18
 41.07
 26.94
 21.76
 15.94
 15.04
 37.50
 36.91
 44.78
 41.42
 27.93

100.0
 100.0
 100.0
 100.0
 100.0
 100.0
 100.0
 100.0
 100.0
 100.0
 100.0

Best Sources for Public Information - Question nine deals with how LANTA could better serve the community in providing public information. To assist in efforts to market new or existing public transportation services, Lehigh County and Northampton County residents were asked to indicate the best way to reach them with information regarding transit services. The table on the following page presents these results. It is important to note that the survey did not limit the number of answers each respondent could select, so all choices were included in the total count. The preferred choice for both areas is *newspapers*, with 49.21 percent of the total responses for the core area and 45.69 percent for the respondents living outside of the LANTA core service area. The second most popular choice for both areas was the *LANTA website*, with 19.29 percent of the responses for the core area and 22.47 percent of the responses for the non-core area. *Schedules and brochures* was the next highest

response from the core service area (11.42%), while the *bus driver* (13.11%) was the next highest response from the non-core area respondents.

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49.21
11.42
2.76
19.29
1.18
2.36
10.63
3.15

45.69
10.86
1.12
22.47
0.00
0.75
13.11
5.99

Newspaper
Schedules/Brochures
Radio/TV
Website
Friends/Relatives
Posters
Bus Driver
Other

Purpose for the Use of LANTA - The tenth question in the survey asked respondents to check off a box that represents the purpose for their most likely use of LANTA bus services. The table below shows that approximately one-third of the respondents from both areas indicated that *work* would be the biggest reason for using the bus. *Personal business* was the second most popular reason for possibly using the LANTA bus services among core area respondents (23.11 %) and non-core respondents (21.89%).

Work

Shopping
 Personal Business
 Medical/Dental
 Recreational/Social
 School
 Other
 None

33.86
 1.20
 23.11
 11.16
 8.37
 5.58
 2.79
 13.94

30.19
 1.13
 21.89
 10.94
 7.92
 9.06
 1.51
 17.36

A total of 13.94 percent of the core area respondents and 17.36 percent of the non-core area respondents indicated that they would not use LANTA services for any purpose. Also, a very low number of respondents from both areas indicated they would use LANTA for shopping related purposes. The *other* purposes for use of the service included the loss of the ability to drive, bus service to the airport, Sunday church service, trips to New Jersey, and to save money on gasoline.

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Perception of Service Performance - The next question was asked of only those who have used LANTA. These respondents were asked to rate LANTA's overall service and performance across 12 different attributes. The question provided a list of possible ratings to choose from. The table below provides the results based on the responses from the core area respondents. It shows differences occur between the specific responses in the various categories. For example, *driver courtesy* obtained the largest percentage of "excellent" responses (30.00 %), while *service frequency* received the smallest percentage (10.91 %).

For survey questions of this type, a response is considered favorable if the total

number of responses of "excellent," "very good," and "good" is greater than or equal to 90 percent. The table shows that none of the 12 categories attain the 90 percent threshold for a favorable rating. Two categories came close to achieving this favorable rating status with driver courtesy and driver riding habits receiving combined totals of excellent, very good, and good ratings of 86.67 percent and 86.21 percent, respectively.

Core Area

Vehicle cleanliness
Driver courtesy
Driver driving habits
Service information
Buses are on-time
Service frequency
Places served
Service in general
Cost of ride (fares)
Ride comfort
Safety
Overall satisfaction

16.67

30.00

20.69

14.04

15.00

10.91

12.96

25.86

15.79

13.56

23.33

21.67

53.33

41.67

50.00

35.09

31.67

21.82
33.33
43.10
36.84
45.76
40.00
35.00

15.00
15.00
15.52
19.30
16.67
23.64
16.67
10.34
8.77
22.03
21.67
28.33

85.00
86.67
86.21
68.43
63.34
56.37
62.96
79.30
61.40
81.35
85.00
85.00

13.33
10.00
12.07

29.82
28.33
32.73
31.48
20.69
36.84
18.64
11.67
13.33

1.67
3.33
1.72
1.75
8.33
10.91
5.56
0.00
1.75
0.00
3.33
1.67

The category with the lowest total of "excellent," "very good," and "good" responses was *service frequency* with a favorable rating of only 56.37 percent. This is a very low rating and will need to be examined further in the development of service improvement proposals. The second lowest rated category is the *cost of the ride* with a favorable rating of only 61.40 percent. Generally, any category with a favorable rating below 85 percent should be an area of concern for LANTA. Overall, only five of the 12 categories received a score of 85 percent or higher from the core area riders.

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In terms of the non-core area riders, the table below shows that LANTA received a 90.48 percent favorable rating for *vehicle cleanliness*, with *service in general* and *driving riding habits* receiving favorable ratings of 85.72 percent. The *cost of the ride* received the lowest favorable rating of 68.18 percent and is another area with a very low score that warrants attention by LANTA.

Non-Core Area

Vehicle cleanliness
Driver courtesy
Driver driving habits
Service information
Buses are on-time
Service frequency
Places served
Service in general
Cost of ride (fares)
Ride comfort
Safety
Overall satisfaction

14.29

27.27

14.29

18.18

0.00

9.09

9.52

14.29

27.27

18.18

22.73

14.29

57.14

31.82

47.62

36.36

59.09

59.09

47.62

47.62

31.82

40.91

31.82

42.86

19.05
22.73
23.81
27.27
13.64
13.64
19.05
23.81
9.09
18.18
27.27
19.05

90.48
81.82
85.72
81.81
72.73
81.82
76.19
85.72
68.18
77.27
81.82
76.20

9.52
13.64
9.52
9.09
27.27
13.64
14.29
14.28
18.18
18.18

9.09
19.05

0.00
4.54
4.76
9.09
0.00
4.54
9.52
0.00
13.64
4.55
9.09
4.75

The results of this question convey an overall level of dissatisfaction with LANTA services among its riders. The only categories that attained a favorable rating of at least 85 percent from the core area and non-core area riders were vehicle cleanliness and driver driving habits. All of these service attributes could be improved through LANTA policy changes or service improvement recommendations to be developed as part of this study process.

Statements Regarding Public Transportation - The survey asked residents for their opinions regarding seven statements concerning public transportation. Respondents were given five response choices - *strongly agree, agree, disagree, strongly disagree* and *don't know*. The overall results for the core area and non-core area respondents are provided in the two tables shown on the following two pages.

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Core Area

A good local bus system is essential to the growth and prosperity of the area
Local bus service has not kept pace with growth in the area
More public funds should be provided to improve bus service
Bus service should be oriented only to people who don't have a car available
A good bus system should be beneficial to the environment
A bus system is essential for the well being of people within the community

it serves

The plan should consider other options, e.g., Streetcars, Light Rail & Commuter Rail

60.80

23.46

33.20

5.06

45.16

32.40

34.57

41.39

9.28

47.58

2.00

17.70

7.38

54.85

0.81

1.20

0.82

4.10

28.27

1.61

3.60

23.46

13.93

2.53

4.84

49.19

43.95

3.23

1.21

2.42

40.50

33.47

11.16

3.31

11.57

Some of the key observations from the core area responses include the fact that there was substantial agreement (*strongly agree* and *agree*) on the following:

- A good local bus system is essential to the growth and prosperity of the area (93.20%);
- A bus system is essential for the well being of people within the community it serves (93.14%);
- A good bus system should be beneficial to the environment (92.74%);
- More public funds should be provided to improve the bus service (74.59%), and;
- The plan should consider other options such as streetcars, light rail and commuter rail (73.97 %).

There was substantial disagreement (*disagree* or *strongly disagree*) that bus service should only be oriented to people who do not have a car available (83.12 %).

Another key finding is that about one-quarter of core area residents were unable to respond and cited *don't know* on whether local bus service has kept pace with the growth of the area. However, for those that did provide a response to this statement, a majority of the respondents agree. It is a positive sign of community support that over six times as many residents agree (74.59 %) rather than disagree (11.48 %) that more public funds should be provided to improve the bus service.

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Non-Core Area

A good local bus system is essential to the growth and prosperity of the area
Local bus service has not kept pace with growth in the area
More public funds should be provided to improve bus service

Bus service should be oriented only to people who don't have a car available
A good bus system should be beneficial to the environment
A bus system is essential for the well being of people within the community it serves
The plan should consider other options, e.g., Streetcars, Light Rail & Commuter Rail

51.33

26.07

30.38

6.51

40.91

38.78

31.13

34.62

7.28

51.14

1.52

8.95

8.85

57.85

4.55

3.42

1.95

5.00

26.05

1.14
4.94
31.91
21.15
2.30
2.27
42.21
49.43
2.66
2.28
3.42
48.25
28.40
7.00
3.50
12.84

Some of the key observations from the non-core area responses include the fact that there was substantial agreement (*strongly agree* and *agree*) on the following:

- A good bus system should be beneficial to the environment (92.05%);
- A bus system is essential for the well being of people within the community it serves (92.14%);
- A good local bus system is essential to the growth and prosperity of the area (90.11%) and;
- The plan should consider other options such as streetcars, light rail and commuter rail (76.65%).

There was substantial disagreement (*disagree* or *strongly disagree*) that bus service should only be oriented to people who do not have a car available (83.90%).

Another key finding is that approximately one-third of non-core area residents were unable to respond and cited *don't know* on whether local bus service has kept pace with the growth of the area. However, for those that did provide a response to this statement, a majority of the respondents agree. It is a positive sign of community support that over four times as many residents agree (65.00%) rather than disagree (13.85%) that more public funds should be provided to improve the bus service.

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Changes and Improvements - Question 13 asked survey respondents to suggest what changes or improvements they would like to see accomplished. The table below details the response for the respondents living in the LANTA core service area. The most commonly suggested improvement was the request for *more frequent service*, with 12

mentions, followed by the request for *train service to Philadelphia/New Jersey/New York City*, which had 11 mentions. Other suggestions with a strong response include *more service throughout the day* (10 responses), *better public information* (10 responses), and *more bus stops and bus shelters* (9 responses).

There were three other comments that were mentioned two times and included suggestions such as *better on time performance*, *safer buses*, and *seat belts*.

Core Area

- More frequent service
- Rail service to Philadelphia/NJ/NYC
- More service throughout the day
- Better distribution of public information
- More bus stops and shelters
- Expand service area
- Lower fares
- More evening service
- More weekend service
- Friendlier drivers
- Cleaner emissions
- Enforce rules on buses
- Improve wheel chair access on buses

- 12
- 11
- 10
- 10
- 9
- 7
- 6
- 6
- 6
- 6
- 4
- 4
- 4

The suggested improvements provided by the non-core area respondents are shown in the table on the following page. Overall, the most common responses were for LANTA to *expand the service area* (19 responses), followed by the request for *better distribution of public information* (17 responses). Other suggestions with a strong response include *train service to Philadelphia/New Jersey*, and *New York City* (13 responses), *more rural service*

(10 responses), and more frequent service (8 responses).

There were two other comments that were mentioned one or two times and included suggestions such as *more evening service* and *more weekend service*.

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Non-Core Area

Expand service area

Better distribution of public information

Rail service to Philadelphia/NJ/NYC

More rural service

More frequent service

More bus stops and shelters

Lower fares

Door-to-door service

Safer buses

Cleaner bus emissions

19

17

13

10

8

7

5

4

3

3

Use of Public Funding to Expand or Improve Public Transportation - The residents surveyed were asked whether or not they favor an increase in public funding to pay for expanded or improved public transportation services. As shown in the table below, approximately 48 percent of the core area responding population felt that more public funds should go towards public transportation, which was much higher than those who disagreed with the statement (16.67 %). The other 35.71 percent responded don't know. In terms of the non-core area responses, approximately 42 percent agreed that more public funds should be spent on public transportation, while 18.77 percent disagreed and 39.08 percent were not sure. The percentages of respondents from both areas who agreed that more funds should be spent on public transportation is lower than the results from Question 12, when almost 75 percent of core area respondents and 65 percent of non-core area respondents indicated that

more public funds should be spent on public transportation.

Yes
No
Don't Know

47.62
16.67
35.71

42.15
18.77
39.08

The results from nine other recent surveys where similar questions were asked are summarized below and compared to the results from this survey. When compared to the other surveys, Lehigh County and Northampton County's results are skewed a bit by the larger than average *don't know* responses. The percentage of core area and non-core area residents in favor of increased public funding was higher than the group average of 41 percent. The core area and non-core area residents who did not favor an increase in public funds for public transportation was lower than the group average of 35 percent. The fact that

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the *don't know* response is high is another indicator of the need to educate the public on the LANTA services that are available and the benefits provided.

Berks County, PA
Charleston, WV
Erie, PA
Lancaster, PA
Mankato, MN
Pike County, PA
St. Cloud, MN
Lebanon County
Stevens Point, WI

Core Area

Non-Core Area

43

31

42

37

55

25

59

35

40

48

42

22

54

20

51

30

52

27

29

27

16

17

35

15

38

12

15

23

33

36

33

34

36

Gender - The core area respondent group was 42.37 percent male and 57.63 percent female; the non-core area respondent group was 40.74 percent male and 59.26 percent female. This would suggest a higher response rate by women.

Age Group - The respondents were asked to identify the age group in which they belong. As shown in the table on the following page, the ages of the survey respondents were skewed towards the higher age groups, with the *65 and above* age group representing the largest category of the core area at 36.78 percent; the *35 to 54* age group was the largest category of the non-core area responses with 34.19 percent. The second largest age group was reversed, with the *35 to 54* age group accounting for 32.95 percent of the core area responses, and the *65 and above* age group accounting for 33.92 percent of the non-core area responses. The *18 to 24* year old group represents the smallest grouping for both the core area (3.07%) and the non-core area (1.10%). This higher representation of the age groupings of *35 to 54* year old and *65 and above* is common in these types of surveys. Residents in these groups tend to be less transient, more settled, and more apt to participate in civic matters such as this survey.

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3.07

5.75

32.95

21.46

36.78

1.10

9.93

34.19

20.96

33.92

18 to 24

25 to 34

35 to 54

55 to 64

65 and Above

Occupation - Survey respondents were asked to identify their occupation. The

general occupation categories and the response rates are listed in the accompanying table. Due to the heavy representation of the respondents who were over 65, it is not surprising that the single largest occupation category from the core area and the non-core area respondents was *retired* (35.77% core area - 36.94% non-core area). *Manager/professional* was the second highest selected occupation for the core area (25.00%) and non-core area (28.36%) respondents. The lowest responding group from core area respondents was *students*, with 0.77 percent. This is also not surprising as students are usually younger adults, and the younger adults accounted for only about three percent of the core area survey population. The lowest responding group based on the non-core area responses was unemployed, with 0.75 percent.

Manager/Professional
 Technical/Skilled
 Student
 Homemaker
 Clerical
 Retired
 Service Industry
 Unemployed
 Other

25.00
 9.62
 0.77
 7.69
 3.46
 35.77
 8.46
 1.54
 7.69

28.36
 7.84
 1.49
 5.97
 4.10
 36.94
 7.84
 0.75
 6.72

Household Income - Survey respondents were then asked to indicate the range in

which their annual household income belongs. Often times, recipients of surveys such as this one find this question to be too personal and are not comfortable answering. A total of 37 people (13.96 %) of the core area responding population and 45 people (16.01 %) of the non-core area respondents chose not to answer this question. The response rates are approximately 85 percent, which is high for this type of question when compared to other recent surveys in which the same question was asked. The question is included to determine whether or not the sample compares well with the overall population in a socioeconomic manner. As shown in the table on the following page, about 38 percent of the core area respondents and about 52 percent of non-core area respondents have total family income

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above \$55,000. The table shows major differences in the results of the household income between the resident and the rider survey presented in the earlier part of this chapter. In the rider survey, almost two-thirds of the riders had family incomes below \$25,000 compared with only about 20 percent of the residents. On the other side of the income scale, approximately 45 percent of the residents that responded to the survey had annual total family incomes above \$55,000 compared with 6.65 percent of the riders. In summary, the survey sample is a reasonable representation of the household income of the LANTA service area. However, the household income of the residents that responded is much greater than LANTA riders.

Less than \$10,000
 \$10,000 to \$24,999
 \$25,000 to \$39,999
 \$40,000 to \$54,999
 \$55,000 to \$69,999
 \$70,000 or greater

4.82
 21.05
 19.30
 17.11
 11.84
 25.88

2.12
 12.71
 19.92
 13.14
 13.14
 38.98

27.30
35.04
23.62
7.39
3.23
3.42

* Percentages based on combined results of Allentown and Easton riders.

Summary - The discussion above provides a description of the process and results of the residential mail-out/mail-back survey performed for Lehigh and Northampton Counties. The survey effort was successful with 546 valid surveys, achieving the goal of 400 responses to achieve statistical significance.

Most of those residents that responded to the survey were non LANTA users; a majority of the riders were female and about one-third were at least 65 years old and retired. Approximately nine out of ten survey respondents indicated that bus service is important to the community. A significant majority indicated that they do not use LANTA because they have a car available for their trip. The other dominant reason for not using LANTA is that they don't have information about LANTA bus service. About one-half of the survey respondents stated that they would switch or consider switching to LANTA if gasoline reaches \$4.00 per gallon. Besides the price of gasoline, other important factors to attract them to bus service are reasonable cost, frequent service, service closer to home, and more information about LANTA bus service. If they were to use LANTA services, work would be the primary trip purpose followed by personal business. The best way to reach survey respondents about LANTA services is the newspaper.

Those that have used LANTA services identified service frequency and cost of ride as the least favorable aspects of LANTA services.

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Most of the survey respondents agreed that a good bus system is an important asset for a community for a number of reasons with about 60 percent stating that other modes such as streetcars, light rail and commuter rail should also be considered. The major suggestions for better LANTA services included more frequent service, rail service to Philadelphia, New Jersey and New York City, better distribution of public information, and expanded service area. In terms of funding improved transit services, close to one-half of the survey respondents stated that they would support an increase in tax dollars to improve and expand transit services while about 18 percent indicated that they would not. The remaining said that they didn't know. These results are higher compared to those from other similar surveys in terms of the number of people that answered yes. Further, the response in the LANTA survey also showed a much smaller number that answered no.

Summary

The previous discussion presented the results of two surveys that are oriented to riders and residents of the Lehigh Valley. They represent both manifest and latent demand for public transportation. The rider survey results suggest that a substantial portion of current LANTA patrons are captive in that they could not have made their trip without LANTA service. In contrast, the vast majority of residents of both Lehigh and Northampton Counties have automobiles as their primary mode of travel. While most do not use LANTA, some can be characterized as choice riders since they have a car, but chose public transportation. This dichotomy of riders and residents in terms of public transportation use and attitudes will provide useful input to the planning process.

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Appendix

Survey Forms

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LANTA/METRO - Rider Survey - 2008

En Español en el otro lado

Dear Customers: We'd like to learn more about you and your travel needs to help LANTA plan its future services. Please read each question and mark the most

appropriate answer. Please complete only one full survey card during this survey week. Thank you!

1. Please list the route you were on when you received this survey?

Route Letter/Name _____

2. How did you get to this bus? Walked _____ block(s) Bike
 Drove car Another bus (Route ____)
 Dropped off in car Other

3. After leaving this bus, how will you complete your trip to your final destination? Walk _____ block(s) Bike Drive car Other
 Will be picked up in car Another bus (Route _____)

4. How did you pay your fare on this bus? Seniors-free Cash Full
 Day Pass 31 Day Pass 10 Ride Ticket 40 Ride Ticket
 Transfer Student Ticket Other _____

5. How long have you been riding LANTA/Metro service?

Less than a year 1-2 years 3-4 years 5 or more years

6. How many trips (on LANTA/Metro) do you make in an average week?

(Each trip is a one-way ride on the bus.) 0 1 2 3
 4 5 6 7 8 9 10 11
 12
 12+

9. Compared to a year ago, LANTA/Metro service is:

Getting better Getting worse Staying about the same

10. Which sources of information about LANTA/Metro service do you most often use? Select top 3:

Bus schedules System map
 Drivers Radio/TV Calling LANTA Newspapers
 Word-of-mouth Notices on buses Phone book
 Internet: lantabus.com Other _____

11. Compared to last year, you are riding:

More Less
 About the same I am a new rider

12. Could you have made this trip if this service were not available?

No Yes Yes, but with inconvenience

13. Do you have a valid driver's license?

Yes No

14. How many autos are there in your household?

0 1 2 3 or more

15. Please state your age:

below 18 18 to 24 25 to 34
 34 to 54 55 to 64 65 and above

16. Please state your sex:

Male Female

17. What is your occupation?

Student Manger/Professional
 Technical/Skilled Clerical Service Homemaker
 Retired Unemployed Other _____

18. What is your total family income in a year?

Less than \$10,000
 \$10,000-\$24,999

\$25,000-\$39,999

\$40,000-\$54,999

\$55,000-\$69,999

\$70,000 and above

7. What is the purpose of this trip today?

School Work Shopping
 Personal Business Medical/Dental Social/Recreation

Other _____

8. How do you rate LANTA/Metro service for each of the following:

Very

Buses running on time

Vehicle cleanliness

Excellent

Value received for fare charged

Driver courtesy

System safety

Printed information

Places served
Telephone customer service
Website information
Overall satisfaction

Γ
Γ
Γ
Γ
Γ
Γ
Γ

Good

Γ
Γ
Γ
Γ
Γ
Γ
Γ
Γ
Γ
Γ

Good

Γ
Γ
Γ
Γ
Γ
Γ
Γ
Γ
Γ
Γ

Fair

Γ
Γ
Γ
Γ
Γ
Γ
Γ
Γ
Γ
Γ

Poor

Γ
Γ
Γ
Γ
Γ
Γ
Γ
Γ
Γ
Γ

19. What is the single most important improvement that you would

suggest for LANTA/Metro service?

After completing this card, return it to the survey worker. You can also take it with you and return it to the driver on your next trip on LANTA/Metro. Thank you for your help!

MOVING LANTA FORWARD

May 13, 2008

Dear Citizen:

You can help shape the future of public transportation services in the Lehigh Valley to better serve you and your family, and meet the needs of all residents throughout the area.

We would appreciate if one adult member (age 18 years or older) of your household would answer this questionnaire. Your household is one of only a small sample of homes to receive this questionnaire. Therefore, it is very important to have this questionnaire completed and returned. Even if you never use public transportation services, your response is needed. In fact, the purpose of this survey is to obtain the opinion of all Lehigh Valley residents. In addition, your opinions and thoughts regarding your transportation needs and the needs of others in your community are essential to the completion of the important project. This Plan will be completed next year and is focused on identifying improvements to the region's public transportation system.

This is your opportunity to have a direct voice in the planning of local public transportation services. All surveys returned will be held in strict confidence. Nowhere in this questionnaire are you required to provide your name or address. Please complete the enclosed questionnaire and return it by mail in the prepaid envelope provided by May 31, 2008. We sincerely appreciate your participation.

Sincerely,

Armando V. Greco

Executive Director

LEHIGH VALLEY REGIONAL PUBLIC TRANSPORTATION PLAN

2008 TRANSPORTATION SURVEY

(All information that you submit will be held in strict confidence)

1 . Have you personally used LANTA bus service in the past year?

Yes

No

2 . Does anyone in your immediate household ride the bus once a month or more?

Yes

No

3. How close do you live to a bus route? Right on a bus route

Within a 5 minute walk Within a 10 minute walk More than a 10 minute walk

Don't know

4. How important is local bus service to residents of your community?

Very important

Don't know

Important

Somewhat important

Not important

5. This question is only for those who do not use local bus service. Please indicate whether you agree or disagree that the following are reasons you do not use bus service? If you use local bus service, skip to question 6.

I have a car available

I don't live near a bus stop

No service to where I want to go

No service when I want to go

I don't like traveling with strangers

Bus service is too slow

I don't like waiting for a bus

I don't have information on service

I don't feel safe on a public bus

Bus service fares are too expensive

I make multiple stops on my trips (e.g., day-care, errands)

I am unfamiliar with the bus service and how to use it

Agree

—

—

—

—

—

—

—

—

—

—

—

Disagree

-
-
-
-
-
-
-
-
-
-
-
-
-
-

6. In what way has the price of gasoline affected the way you travel? No affect Traveling less
 Considering switch to public transit Have switched to public transit Don't know
7. Will gasoline prices at \$4.00 per gallon influence you to utilize or increase your utilization of LANTA bus service? Yes No Maybe Don't know
8. How important are the following factors in influencing you to utilize or increase your

- utilization of LANTA bus service?
- Service closer to my home
- Service closer to my work
- Service closer to shopping
- More frequent service
- More information about existing services
- Reasonable cost of the service
- Having more evening service
- Having more Saturday service
- Having Sunday service
- More door-to-door service
- More park-n-ride service

-
Good

-
-
-
-
-
-
-
-
-
-
-
-

Good

-
-
-
-
-
-
-
-
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-
-

Fair

-
-
-
-
-
-
-
-
-
-
-

Poor

-
-
-
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-
-
-
-
3

A good bus system is essential to growth and prosperity of the Valley.

Local bus service has not kept pace with growth in the Valley.

More public funds should be provided to improve bus service.

Bus service should be oriented only to people who don't have a car available.

A good bus system is beneficial to the environment.

A bus system is essential for the well being of people within the community it serves.

The plan should consider other options, e.g., Streetcars, Light Rail & Commuter Rail
Strongly
Agree

Agree

-
Strongly
Disagree Disagree

-
Don't
Know

-
-
-
-
-
-
-
-
-

