



TRANSPORT AND HIGHWAYS

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Northern Corridor Bus User Survey Results



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Summary of Results

1. Summary of satisfaction with local bus services

Variable	% Satisfied
Cost of fares	58.5
Public transport information	69.1
Frequency of service	71.0
Reliability of service	75.6
Cleanliness and comfort	76.3
Journey times	78.5
Overall service	80.0
Personal safety	81.6
Location of bus stops	88.5
Ease of boarding	90.9

2. Summary of support for bus priority measures

Route Section	% Support
Woolwell ↔ Derriford Roundabout	76.5
Derriford Roundabout ↔ Manadon	80.6
Manadon ↔ Hyde Park Pub	75.8
Mutley Plain	85.3
North Hill ↔ Royal Parade	80.9
Manadon ↔ Milehouse	61.4
Milehouse ↔ Royal Parade	64.1

3. **Headline comments relating to route**

Below is a summary of some re-occurring comments that were made;

- Congestion at Woolwell Roundabout and in and around the George Junction
- Difficulty accessing the George Junction Park and Ride for local traffic
- Poor visibility for approaching buses on Crownhill Lower Level
- Long delays on Manadon flyover at peak times
- Congestion approaching Mutley Plain in both directions – need bus lanes.
- Parking in bus bays and unloading Lorries along Mutley Plain
- Large number of people boarding buses heading to the north of the city and getting off at Mutley Plain, leaving the bus relatively empty for the remainder of the journey
- Need improvements at Milehouse Park & Ride for the bus system and for cars exiting the site
- Outland Road needs to be better connected by public transport
- Need continuous bus lanes
- Lack of public transport information
- Improvement needed at Derriford Hospital for the entrance and exit of buses
- Too many buses going to Derriford Hospital
- Need for local bus services to pull into George Junction P & R when there is a stop on A386.

1. Introduction

The Northern Corridor is the main transport route from Woolwell to the City Centre covering the areas of Mutley Plain, Manadon, Milehouse, Crownhill, Derriford, Seaton and Southway. It follows the A386 along Tavistock Road and Outland Road and also the B3250 along Mannamead Road and Mutley Plain. The Northern Corridor is a vital transport route not only for people in the north of Plymouth, but for residents across the city.

In recent years, Derriford has seen a growth in the level of development, which is set to continue in the future, to provide a sustainable centre for the north of Plymouth. Any future development in the Derriford area is likely to place a greater demand for travel on the transport network and particularly the Northern Corridor.

Plymouth City Council is seeking to improve transport between the north and the city centre as well as to local areas, particularly by public transport. In July 2007 a bus user survey was carried out on the Northern Corridor to gather people's views about local bus services.

Bus users were asked to provide details about their bus journey and to tell us how satisfied they were with their local bus service. Views were sought about their experience of using public transport and the extent to which they would support public transport measures which would improve the reliability and journey times of their local bus service.

This survey was later complemented by a series of transport 'road shows' which asked for views and people's experiences of travelling on the Northern Corridor using all modes of transport.

2. Methodology

A schedule was prepared which identified all the bus routes and their numbers servicing the north of the city. Six surveyors were commissioned to distribute surveys over a period of 3 days to the passengers of these buses. A neutral period was chosen so that an exceptional event would not skew the data by capturing a large number of people who travel infrequently.

An accurate response rate is difficult to calculate as surveys were also left for people to pick up at key locations along the corridor such as the George Junction Park & Ride and Derriford Hospital in an effort to increase the number of responses. However, it is known that 2631 were distributed on the buses and a further 130 were left at these other locations. 802 valid survey responses were returned; assuming that all these other surveys were taken by members of the public we can calculate a very good response rate of 29%. If the further 130 survey forms are excluded from the calculations this results in a slightly higher response rate of 30.5%.

3. Results

3.1 Section 1

The bus users were first asked to enter the service number of the bus that they were on. Many respondents entered more than one service number indicating that they wished to respond for all the services that they used on a regular basis. Views and customer satisfaction levels about specific bus services are not discussed in this report for commercial reasons but have been fed back to the relevant public transport operators for their consideration.

The bus users were asked how frequently they travel on their local bus services. Out of the 802 bus users that responded, 783 answered this question. Table 1 shows that the majority of respondents travel most days on their local bus service (56.8%) with a further 27.6% indicating that they travel at least once or twice a week.

Table 1

How often do you use the bus?

	Frequency	Percent	Cumulative Percent
Most Days	445	56.8	56.8
Once/twice a week	216	27.6	84.4
Less than once a week	35	4.5	88.9
Infrequently	87	11.1	100.0
Total	783	100.0	

Information about where the bus user's journey started and ended was also asked. This information was not collected for the purpose of this report, but the data will be used to analyse peoples' travel patterns around the city to help ensure that bus services go where people need to travel.

3.2 Section 2 – User Satisfaction

Bus users were asked how satisfied they were with certain elements of the bus services they use. This ranged from the reliability, frequency and duration of the journey through to the cost, cleanliness and comfort of their local bus service. Question 4 allowed the opportunity for respondents to make further comments about their local bus services. In total 374 comments were received.

3.2.1 Satisfaction with Bus Reliability

Satisfaction with bus reliability was high with 75.6% of respondents indicating that they were either very satisfied or satisfied with the reliability of their local bus service. When this was analysed against how often they use the bus (see Table 2), those respondents who use the bus most days appear to be less satisfied with the reliability of their bus service than those who use the bus once/twice a week or less. The highest level of satisfaction with the reliability of the bus service is for those who indicated that they use the bus less than once a week (88.2%). For those who were dissatisfied with the reliability of their local bus service, comments include;

“Sometimes the bus drives straight past me, even when my hand is out.”

“Reasonably satisfied on the whole though buses are often late and some services are cancelled without notification.”

“Used to get the [bus number] more often but service was so bad, I resorted to using my car. Had to use bus again recently, service slightly improved. If there was a direct service I would use it.”

“Some buses don't turn up and hard to rely on. No notification. Call centre hard to get through to.”

“Early morning services often leave early.”

Table 2

How often do you use the bus? * Satisfaction with Reliability

			Satisfaction with reliability			Total
			Satisfied	Neither/nor	Dissatisfied	
How often do you use the bus?	Most Days	Count	304	46	82	432
		% within How often do you use the bus?	70.4%	10.6%	19.0%	100.0%
	Once/twice a week	Count	168	8	32	208
		% within How often do you use the bus?	80.8%	3.8%	15.4%	100.0%
	Less than once a week	Count	30	3	1	34
		% within How often do you use the bus?	88.2%	8.8%	2.9%	100.0%
	Infrequently	Count	70	7	4	81
		% within How often do you use the bus?	86.4%	8.6%	4.9%	100.0%
Total		Count	572	64	119	755
		% within How often do you use the bus?	75.8%	8.5%	15.8%	100.0%

3.2.2 Satisfaction with Cost of Fares

Satisfaction with the cost of fares is relatively low with only 58.5% of respondents indicating that they were either very satisfied or satisfied with the bus fares. For all the respondents who indicated that they use the bus on most days only 52.6% said that they were satisfied with the cost of the bus fare; however for those who use the bus less often, such as less than once a week 84.8% were satisfied with the cost of the fares (see Table 3). For all those who were dissatisfied, comments include;

“Bus drivers never know about which tickets are best value - returns or day rider.

Different ticket prices at different times - ridiculous and takes advantage of commuters.”

“Weren't warned of fare increase.”

“Compared with other cities, buses in Plymouth are very expensive - doesn't encourage those with cars to go in by bus.”

“Lower prices - get more people on!”

“Fares are stupendously high - I would always drive to the city if I can.”

Table 3

How often do you use the bus? * Satisfaction with cost of fares

			Satisfaction with cost of fares			Total
			Satisfied	Neither/nor	Dissatisfied	
How often do you use the bus?	Most Days	Count	205	76	109	390
		% within How often do you use the bus?	52.6%	19.5%	27.9%	100.0%
	Once/twice a week	Count	110	17	35	162
		% within How often do you use the bus?	67.9%	10.5%	21.6%	100.0%
	Less than once a week	Count	28	1	4	33
		% within How often do you use the bus?	84.8%	3.0%	12.1%	100.0%
	Infrequently	Count	42	12	20	74
		% within How often do you use the bus?	56.8%	16.2%	27.0%	100.0%
Total		Count	385	106	168	659
		% within How often do you use the bus?	58.4%	16.1%	25.5%	100.0%

3.2.3 Satisfaction with Ease of Boarding

Satisfaction with ease of boarding buses is high regardless of how often people travel. Overall satisfaction is 90.9%. For the 29 respondents who felt dissatisfied with this element of the local bus service comments include;

“I find the bus is too high to get on.”

“The bus stop at the Tavistock Road end of Powisland Drive is occupied by cars, so passengers cannot alight near the pavement.”

“I have a small baby in a buggy and rarely does the driver park close enough to the kerb or lower the bus.”

“Would like newer buses without steps on and off bus.”

3.2.4 Satisfaction with Cleanliness and Comfort

A high percentage of respondents were satisfied with the cleanliness and comfort of their local bus service (76.3%). Again those respondents who use the bus less than once a week were the most satisfied and those who travelled on most days were the most dissatisfied (see Table 4). Comments of those who said they were dissatisfied include;

“Control children e.g. feet on seats, dirty, noisy.”

“Behaviour and noise from school children should be checked and monitored.”

“Cleanliness could be improved. Could you stop mothers feeding their little ones on the bus or clean up after themselves. Put a notice to that effect.”

“Why can't the school children use their school bus, we have to put up with shouting and bad language.”

“I wish parents of young children would pick up any food or rubbish left on the floor.”

3.2.5 Satisfaction with Frequency of Service

Bus users were asked how satisfied they were with the frequency of their local bus service. 71% of respondents were either very satisfied or satisfied with the frequency of buses. Respondents who were most satisfied were those who used the bus less than once of week (85.7%); only 66.7% of those who travelled on most days were satisfied with this element of their local bus service (see Table 5). Of the people who were dissatisfied with the frequency, comments mainly related to the lack of early and late services;

“Sunday service to be run at more convenient times for people at work.”

“One bus an hour is not adequate as we often get a bus withdrawn.”

“There are no buses between 7pm and 11pm to Tamerton. Many people have to walk from Southway.”

“Evening services from Plymouth to Tavistock too infrequent (hourly from 7pm)”

“The frequency of buses in evenings and on Sundays needs to be increased!”

“The loss of the evening service makes it impossible to persuade people to leave their cars at home.”

Table 4**How often do you use the bus? * Satisfaction with Cleanliness & Comfort Crosstabulation**

			Satisfaction with Cleanliness & Comfort			Total
			Satisfied	Neither/nor	Dissatisfied	
How often do you use the bus?	Most Days	Count	307	75	54	436
		% within How often do you use the bus?	70.4%	17.2%	12.4%	100.0%
	Once/twice a week	Count	184	17	14	215
		% within How often do you use the bus?	85.6%	7.9%	6.5%	100.0%
	Less than once a week	Count	31	3	1	35
		% within How often do you use the bus?	88.6%	8.6%	2.9%	100.0%
	Infrequently	Count	68	9	9	86
		% within How often do you use the bus?	79.1%	10.5%	10.5%	100.0%
Total		Count	590	104	78	772
		% within How often do you use the bus?	76.4%	13.5%	10.1%	100.0%

Table 5**How often do you use the bus? * Satisfaction with Frequency of Service Crosstabulation**

			Satisfaction with Frequency of Service			Total
			Satisfied	Neither/nor	Dissatisfied	
How often do you use the bus?	Most Days	Count	292	46	100	438
		% within How often do you use the bus?	66.7%	10.5%	22.8%	100.0%
	Once/twice a week	Count	165	22	27	214
		% within How often do you use the bus?	77.1%	10.3%	12.6%	100.0%
	Less than once a week	Count	30	3	2	35
		% within How often do you use the bus?	85.7%	8.6%	5.7%	100.0%
	Infrequently	Count	58	20	4	82
		% within How often do you use the bus?	70.7%	24.4%	4.9%	100.0%
Total		Count	545	91	133	769
		% within How often do you use the bus?	70.9%	11.8%	17.3%	100.0%

3.2.6 Satisfaction with Personal Safety

Satisfaction was high with 81.6% of respondents indicating that they felt safe whilst travelling on their local bus service. Although satisfaction was high regardless of how often people travelled; for those who use the bus most days their level of satisfaction is slightly lower than those who travel infrequently, 79.2% and 85.2% respectively. There were very few comments that were made in respect of personal safety, however those that were made include;

“On one occasion a few weeks ago, a late bus from the town centre to Southway was attacked at the higher level of Dunnet Rd. either by an air pistol/catapult or other projectile. I was on this bus so although I don't usually have fears for my safety, that was a shock (2 windows of the bus were smashed)”

“Safety - could have seat belts. Also the drivers could wait until all passengers are seated. I know this will slow the bus down but for parents of small children, it saves accidents.”

“It would help if the drivers make sure that you are sat down before pulling away from stops - not hurl you half way down the bus.”

“The speed some drivers go is very frightening.”

3.2.7 Satisfaction with Public Transport Information

The satisfaction level for public transport information is relatively low at 69.1%. The level of satisfaction varies depending on how often people travel, the lowest satisfaction being shown for those who travel on most days (63.6%; see Table 6). There were very few comments relating to public transport information, those that were made include;

“Timetables need to be larger and clearer to read.”

“Would like to see return of all in one booklet of travel times.”

“Put bus times on all stops!”

“PDF timetables or similar available to download, easier than having to pick one up from town.”

Table 6

How often do you use the bus? * Satisfaction with PT Information Crosstabulation

			Satisfaction with PT Information			Total
			Satisfied	Neither/nor	Dissatisfied	
How often do you use the bus?	Most Days	Count % within How often do you use the bus?	274 63.6%	101 23.4%	56 13.0%	431 100.0%
	Once/twice a week	Count % within How often do you use the bus?	165 80.5%	19 9.3%	21 10.2%	205 100.0%
	Less than once a week	Count % within How often do you use the bus?	24 75.0%	8 25.0%	0 .0%	32 100.0%
	Infrequently	Count % within How often do you use the bus?	56 69.1%	16 19.8%	9 11.1%	81 100.0%
Total		Count % within How often do you use the bus?	519 69.3%	144 19.2%	86 11.5%	749 100.0%

Satisfaction with public transport information is one of the City Council’s Best Value Performance Indicators (BVPI 103). A public survey is carried out every three years to measure levels of satisfaction with council services; the 2006/07 survey found that the level of satisfaction with public transport information was low at 56%¹. This bus user survey, although utilizing a different sampling method, found that satisfaction on the Northern Corridor was much closer to the city’s target of 70% at 69.1%.

3.2.8 Satisfaction with Location of Bus Stops

Satisfaction with the location of bus stops on the Northern Corridor was high with 55.1% of respondents being satisfied and 33.5% being very satisfied. Only 3.8% of respondents were dissatisfied with this element of the public transport service. This high level of satisfaction is equally spread between the four travel frequencies (see Table 7). Some of the comments about the location of bus stops included;

“Bus stops too far apart from turning point to Rowan Way.”

“Bus stop A14 unfairly placed for those who work at bottom of Royal Parade. It's been like this for 20 years!! And why share with Whitleigh? Two big estates sharing one bus stop!”

¹ The BVPI survey has now been replaced with ‘The Place Survey’, which will be undertaken every 2 years. The first survey is due to take place in autumn 2008.

“...There are so many buses going to Mutley, I can't remember where they all stop on Royal Parade, so if it says MUTLEY on front, then stops in wrong place - you're making me run for no reason.”

Table 7

How often do you use the bus? * Satisfaction with Location of Bus Stops Crosstabulation

			Satisfaction with Location of Bus Stops			Total
			Satisfied	Neither/nor	Dissatisfied	
How often do you use the bus?	Most Days	Count	388	30	21	439
		% within How often do you use the bus?	88.4%	6.8%	4.8%	100.0%
	Once/twice a week	Count	187	19	5	211
		% within How often do you use the bus?	88.6%	9.0%	2.4%	100.0%
	Less than once a week	Count	30	2	2	34
		% within How often do you use the bus?	88.2%	5.9%	5.9%	100.0%
	Infrequently	Count	74	8	1	83
		% within How often do you use the bus?	89.2%	9.6%	1.2%	100.0%
Total		Count	679	59	29	767
		% within How often do you use the bus?	88.5%	7.7%	3.8%	100.0%

3.2.9 Satisfaction with Journey Times

Bus users were asked how satisfied they were with the length of their journey time. Satisfaction is high at 78.5% overall. When analysed against how often people travel, satisfaction peaks at 97% for those who use the bus less than once a week. For those who indicated that they travel on most days, satisfaction was lower at 74.3% (see Table 8). Comments relating to journey times include;

“This is one of the worst routes, due to high volume of traffic in northern parts at busiest times. Delays are worst at Derriford to Woolwell (and vice-versa). It takes too long for commuters to get to and from city centre. If journey was more direct, would be much faster and reliable. Is it really necessary to drive into the P&R when there are bus stops right outside?! Also each journey goes into Derriford hospital - that can add at least 10 minutes to my journey each way!”

“The main problems of the bus journey occur when there is slow moving traffic and in the Woolwell/Derriford area. The bus journey also takes a long time to get to the city centre from Woolwell. This could be avoided by maybe having a separate bus which goes to Derriford hospital to cut the length of time.”

“I only ever use the P&R. I live in Upland Drive and have a bus stop outside my house which I have only used once. The journey took too long because of the route it takes and the service is unreliable. I would rather take my car in this instance.”

Table 8

How often do you use the bus? * Satisfaction with Journey Times Crosstabulation

			Satisfaction with Journey Times			Total
			Satisfied	Neither/nor	Dissatisfied	
How often do you use the bus?	Most Days	Count	323	49	63	435
		% within How often do you use the bus?	74.3%	11.3%	14.5%	100.0%
	Once/twice a week	Count	179	19	14	212
		% within How often do you use the bus?	84.4%	9.0%	6.6%	100.0%
	Less than once a week	Count	32	1	0	33
		% within How often do you use the bus?	97.0%	3.0%	.0%	100.0%
	Infrequently	Count	64	9	8	81
		% within How often do you use the bus?	79.0%	11.1%	9.9%	100.0%
Total		Count	598	78	85	761
		% within How often do you use the bus?	78.6%	10.2%	11.2%	100.0%

3.2.10 Satisfaction with Overall Service

When respondents were asked for their level of satisfaction with the overall service, the majority (80%) were either very satisfied or satisfied with their local bus service (see table 9).

Satisfaction was highest for those who travelled less than once a week (97.1%) and lowest for those who use the bus on most days (see table 10).

Satisfaction with local bus services is also a Best Value Performance Indicator (BVPI 104). The most recent 2006/07 data shows overall satisfaction at 62% - again it should be noted that a different sampling method was used for this survey, but overall satisfaction with local bus services on the Northern Corridor is 10% higher than the city’s target of 70%.

Table 9**Satisfaction with overall service**

	Frequency	Percent	Cumulative Percent
Very Satisfied	215	27.6	27.6
Satisfied	408	52.4	80.0
Neither/Nor	87	11.2	91.1
Dissatisfied	52	6.7	97.8
Very Dissatisfied	17	2.2	100.0
Total	779	100.0	

Table 10**How often do you use the bus? * Satisfaction with Overall Service Crosstabulation**

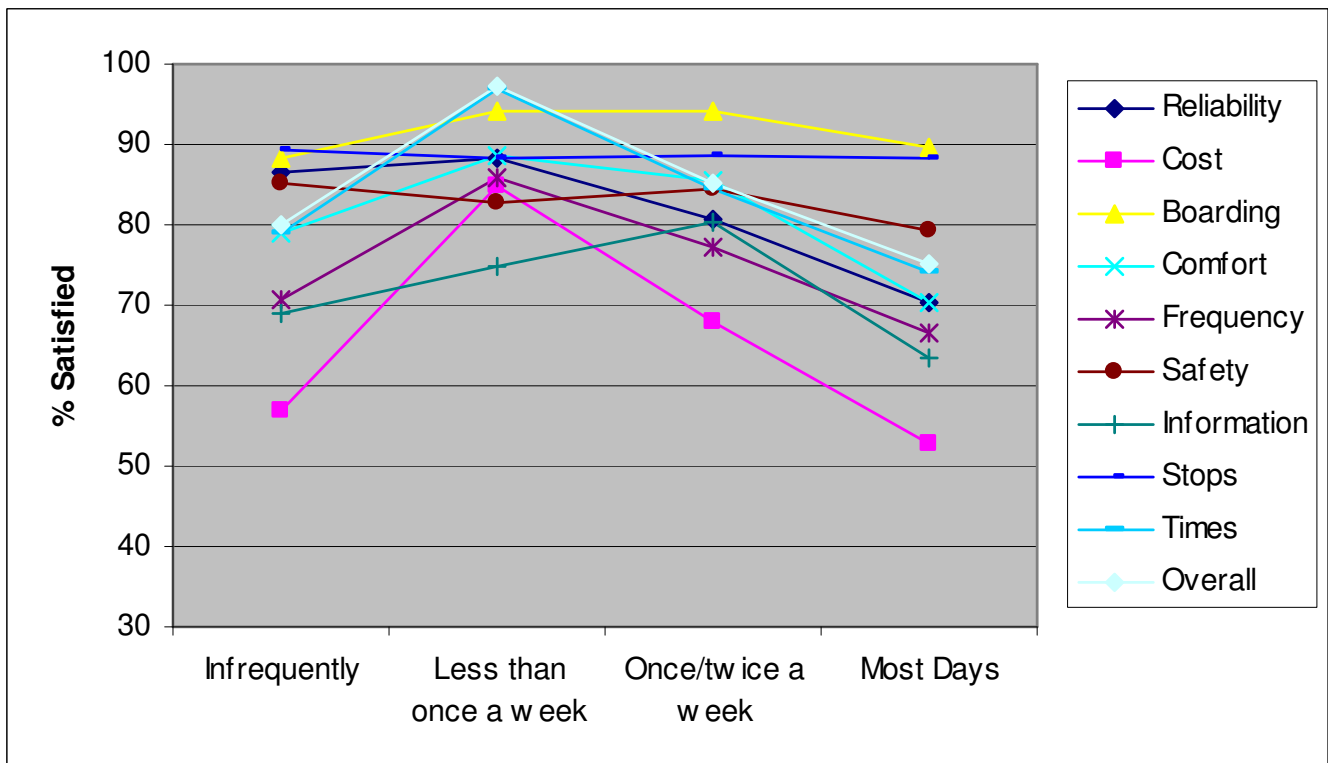
			Satisfaction with Overall Service			Total
			Satisfied	Neither/nor	Dissatisfied	
How often do you use the bus?	Most Days	Count	326	57	50	433
		% within How often do you use the bus?	75.3%	13.2%	11.5%	100.0%
	Once/twice a week	Count	179	15	16	210
		% within How often do you use the bus?	85.2%	7.1%	7.6%	100.0%
	Less than once a week	Count	33	1	0	34
		% within How often do you use the bus?	97.1%	2.9%	.0%	100.0%
	Infrequently	Count	69	12	2	83
		% within How often do you use the bus?	83.1%	14.5%	2.4%	100.0%
Total		Count	607	85	68	760
		% within How often do you use the bus?	79.9%	11.2%	8.9%	100.0%

3.3 Further Analysis

Figure 1 shows the percentage of bus users who were satisfied with each element of their local bus service plotted against how often they travel. This chart, along with the data observed in tables 2 - 9, appears to indicate that there may be a relationship between how often respondents use the bus and their level of satisfaction. The trend in the data shows that satisfaction levels peak for those who travel less than once a week and then gradually declines as they travel more often. Further analysis was carried out to test whether any relationship exists and if so, what is the strength of the relationship and is it statistically significant? It should be noted that with only four 'frequency of travel' categories being used, this analysis is very basic, but provides information that suggests that the relationship between satisfaction and frequency of travel could be explored in future surveys.

Results show that there is a significant negative relationship between frequency of travel and satisfaction with reliability, cost of public transport, cleanliness and comfort of the bus, public transport information, journey times and the overall satisfaction with the bus service. The negative correlation coefficient indicates that as frequency of travel increases, the level of satisfaction decreases; however, the coefficient for each of these variables shows that the relationship is very weak and therefore firm conclusions cannot be drawn (see Tables 1 – 7 in the Appendix).

Fig. 1



3.4 Further Comments

Some further comments relating to levels of satisfaction with local bus services include;

“My journey is easy and quick, there are no delays or problems so I am happy with it. It is frequent and I am very satisfied. Thanks” (No. 40).

“Very pleased with the service - well furnished, clean buses, friendly staff, frequent and reliable, short journey times” (PR 1).

“It is the only service to Woolwell - Invaluable!” (No. 7).

“I would like to be able to get to Plympton from high level Crownhill, instead of having to go into town and then having to get a connection.”

“More buses would be nice. The bus stop at Derriford Hospital isn't long enough at busy periods for all the buses trying to stop there.”

“The £3 Day Rider is excellent value. Single fares before 9am are not so good and some trips depend on what the driver thinks it should be!”

3.5 Level of Support for Bus Priority Measures

Question 5 asked bus users to express their level of support for measures which could improve bus reliability and journey times on the Northern Corridor. The route was broken down into sections in order to establish at what point on this transport corridor they were experiencing problems or felt improvements needed to be made. Question 6 asked bus users to describe their experiences of using the bus on this route, what was good about it or where did their journey encounter delays or problems. In total, 504 comments were received in this section of the survey, as a percentage of the total number of surveys returned the comments response rate is 62.8%. However, out of the 504 comments made, approximately only 160 related specifically to the Northern Corridor transport infrastructure and access, the remaining 344 related to the local bus services. This part of the report is divided into the route sections that were presented on the survey form. It starts from the north of the city and splits at Manadon. It should be noted that bus users were asked to comment on the Northern Corridor route heading into and out of the city centre.

3.5.1 Section 1

Starting from the north of city from Woolwell Roundabout to Derriford Roundabout, 76.5% of bus users said they would support the implementation of measures that would improve the reliability and journey time of their local bus service (see Table 10). With just over a third of the route related comments being made about this section, it was the most cited as that which has the most delays and problems.

Table 10

Support for improvements between Woolwell & Derriford Roundabout

	Frequency	Percent	Cumulative Percent
Strongly Support	138	49.8	49.8
Support	74	26.7	76.5
Neither/Nor	45	16.2	92.8
Don't really support	6	2.2	94.9
Do not support at all	14	5.1	100.0
Total	277	100.0	

Comments about this section of the route include;

“Another exit/entrance should be opened at the rear of the George Park & Ride to ease the traffic congestion on Tavistock Road between the P&R and Woolwell Roundabout. If not, then cars should be allowed to enter and leave as the buses do.”

“Dual carriageway at the Woolwell roundabout. This would reduce the bottleneck and speed up traffic travelling to and from the north of the city in rush hour.”

“A yellow box would be ideal at the George Junction & Morgan Road as at peak times the junction is straddled [by cars] making it difficult for traffic to move when lights change.”

“PR1 travels from Royal Parade to Derriford very quickly. A plan is now needed to get from Derriford to the George more quickly. The present bus lanes work well.”

“To give your drivers a chance to keep to schedule, it is high time the double yellow lines are extended at the entrance of Powisland Drive to try to stop indiscriminate parking (mainly hospital staff) because the road is almost empty a weekends.”

“Before any changes to bus route to and from Woolwell, you must widen the road between George Junction and Woolwell. As it is now, it is a disgrace seeing that large parts of the road would be free to be developed, even if you use the 3 lane highway version seen in Saltash Tunnel.”

“At Derriford Hospital, it is one-way, so inbound and outbound buses pass the same way. If the inbound and outbound stops were more prominently labeled, it would reduce people's need to ask 'do you go to town?’”

“Congestion sometimes encountered between Derriford & Milehouse Park & Ride. There seems to be discouragement to Derriford residents using the George Park and Ride, which could result in a quicker overall journey and less traffic on Outland Road.”

“In rush hours it is a shame about the hold-up near the George. Pity a bus lane was not incorporated all the way along the new road system leading from Plymouth to the P&R at the George lights.”

“The congestion on Woolwell roundabout has to be seen to be believed. There does not seem to be much that can be done. From a cyclist's point of view, it would be a good idea to do away with the priority bus lane from Woolwell Roundabout.”

“On journey home it is dangerous to cross Tavistock Road at the George. At the George, the pedestrian lights are very dangerous and almost useless. In the rush hour, it is impossible to tell if the lights are red or green.”

3.5.2 Section 2

80.6% of bus users would support the introduction of improvement measures between Derriford and Manadon (see Table 11). Although this section has some good bus priority measures many comments were made which related to build up of traffic at Manadon Roundabout in peak times.

Table 11

Support for improvements between Derriford Roundabout & Manadon

	Frequency	Percent	Cumulative Percent
Strongly Support	145	47.7	47.7
Support	100	32.9	80.6
Neither/Nor	41	13.5	94.1
Don't really support	7	2.3	96.4
Do not support at all	11	3.6	100.0
Total	304	100.0	

Comments about this section of the route include;

“Good: - bus lanes. Bad: - Manadon roundabout (delays) traffic lights when they're out all runs better.”

“Bus routes very good except at peak times, when everything slows up, especially Manadon runs up to and beyond Crownhill.”

"I travel everyday from Crownhill to the College of St Mark and St John. The problem I find is when too many buses wait at the bus-stop lower level (Crownhill). You can't see the bus arrive - sometimes it flies by. The approach to the bus bay is not good."

"....Northbound - continuation of bus lane past Crownhill and Whiteleigh junction. Additional stop on or just past Derriford roundabout prior to Marjons. Southbound - return Crownhill lane layout to previous version OR additional lane/bus lane under bridge."

"It all seems to work well. I am pleased the bus (P&R) now stops at the Future Hotel and B&Q on the way back. When Marks & Spencer opens it will be very convenient. The bus lane from Crownhill is useful. There is no other way I can see to speed the bus along from Derriford roundabout to the P&R at the George."

"Need more bus lanes especially on dual carriageway sections approaching Manadon roundabout and around Crownhill intersection."

"Very good service, very convenient. Traffic not too bad up to Crownhill. Peak times busy from Crownhill to Derriford."

3.5.3 Section 3

Section 3 is Manadon to the Hyde Park Pub at the top end of Mutley Plain. 75.8% of bus users would support improvements along this stretch of the route (see Table 12).

Table 12

Support for improvements between Manadon & Hyde Park Pub

	Frequency	Percent	Cumulative Percent
Strongly Support	123	43.2	43.2
Support	93	32.6	75.8
Neither/Nor	50	17.5	93.3
Don't really support	9	3.2	96.5
Do not support at all	10	3.5	100.0
Total	285	100.0	

Some of the comments include;

"1. Digital display at bus stops (Henders Corner). 2. Some bus drivers do not stop in spite of signaling to them. 3. Buses coming from Crownhill cannot be seen from the shelter at Henders Corner due to the overgrowth of foliage on trees on Mannamead Road. This makes it difficult to stop the bus in time."

"I find the many bus routes passing down Mannamead Road very good. I wish however, that there was a pedestrian crossing to enable me to get more quickly and easily across the very busy road to the bus stop at Emmanuel Church!"

"Cars parked in bus lane between Golden Hind and Russell Avenue delay bus into town during morning peak hour."

"Delays frequently experienced due to volume of traffic going from Mannamead Road onto Mannadon Roundabout."

"Manadon & Hyde Park - allocate a bus lane."

3.5.4 Section 4

Mutley Plain yielded the highest level of support with 85.3% of bus users indicating that they would support improvement measures that would reduce their journey time and reliability of their local bus services on this stretch of the route (see Table 13). This section also yielded the second highest number of comments from bus users, some of these comments include;

"Mutley Plain - entering North Hill at lights - please make middle lane a bus lane only - this would assist the flow of traffic up to North Hill and deter car users 'racing' up the hill to get in lane."

"A bus lane on Mutley Plain would help and may encourage car users from the north of the city to use the bus when they see how fast it is."

"All delays are traffic light related with the exception of lorries unloading on Mutley Plain."

"For the Northern corridor, the most used stops are city centre, Mutley Plain and Crownhill. The majority of people get off at Mutley Plain, which in rush-hour can cause problems for people going beyond that stop. Maybe there is a need for a shorter journey run around, leaving more availability for those going from Mutley Plain onwards."

"Mutley Plain is the choke point. Outbound journey times and passenger safety could be improved by stopping illegal parking in the bus bays."

"Over many years the parking of cars on bus stops on Mutley Plain has been a dreadful problem. If any member of the public remonstrates, the only result is an abusive reply. The traffic wardens no sooner move one person than another takes their place. The pedestrian crossings on the cross-roads in the centre of the Plain are very dangerous for pedestrians."

"The [Northern Corridor] route is very direct i.e. into the city and very reliable. Mutley Plain is the only place where there is a problem at times. I find it a good journey and

the drivers very reliable. In my eyes I see no problems. A satisfied customer. Thank you."

"Think bus drivers do very well with the amount of congestion on roads. Section 4 - Mutley Plain - Delivery trucks hold up traffic badly. Could something be done about times of delivery? Very difficult to catch a bus at Mutley outside Barclays Bank as so many buses come together."

Table 13

Support for improvements between Mutley Plain

	Frequency	Percent	Cumulative Percent
Strongly Support	205	52.8	52.8
Support	126	32.5	85.3
Neither/Nor	38	9.8	95.1
Don't really support	9	2.3	97.4
Do not support at all	10	2.6	100.0
Total	388	100.0	

3.5.5 Section 5

Section 5 is the route between North Hill and Royal Parade via Drake Circus and Charles Cross Roundabout. Although there were very few comments made about this section, 80.9% of bus users would support improvements along this stretch of the route (see Table 14).

Table 14

Support for improvements between North Hill & Royal Parade

	Frequency	Percent	Cumulative Percent
Strongly Support	157	49.2	49.2
Support	101	31.7	80.9
Neither/Nor	41	12.9	93.7
Don't really support	7	2.2	95.9
Do not support at all	13	4.1	100.0
Total	319	100.0	

Written comments include;

"I find that the whole route is very good. However one stop that worries me is the one outside Drake Circus shopping mall. The driver has to pull over to the right hand lane to get into the correct lane for Mutley. In the rush hour this can be quite dangerous."

“Makes me mad when bus is full and passes by. They all get off at Mutely Plain, when we live at Southway. I got a bus when road works were on, and it went Pennycomequick way, first stop Crownhill it was good no stops on route. The all go up Clarks [North] Hill and Mutley. Why don't some go to Milehouse. Car drivers could be fined parking in bus bays.”

“Really impressed with the whole service! Only gripe is that displays on stops in town are inaccurate and there is no display on the Drake Circus/Primark Shop. Delays occur when there are roadworks and accidents - could buses be diverted around areas of congestion? “

“Section 5 - The road (North Road) is too narrow for buses. This is a bit of a waste of time via the station. The right turn into North Road is a bit awkward. Mutley Plain is always a problem with cars parked on the bus stops.”

“When returning home in the evening, it would be helpful if there was a bus that would run solely to Mutley Plain from town. The buses running from town to Whitleigh Cross accept customers going further than Mutley Plain to board the buses. On most occasions when boarding a bus on North Hill, it is always full because most customers get off at Mutley Plain. Normally I can't board the bus and have to wait for another one.”

3.5.6 Section 6

At Manadon Roundabout, what is termed as the Northern Corridor, splits with one route heading towards the city centre via Mutley Plain and the other route heading toward the city centre via Milehouse. Section 6 is the stretch of the route between Manadon and Milehouse. Only 61.4% of bus users indicated that they would support measures to improve bus journey times and reliability through this section (see Table 15).

Table 15

Support for improvements between Manadon & Milehouse

	Frequency	Percent	Cumulative Percent
Strongly Support	67	38.1	38.1
Support	41	23.3	61.4
Neither/Nor	46	26.1	87.5
Don't really support	9	5.1	92.6
Do not support at all	13	7.4	100.0
Total	176	100.0	

Comments about this stretch of the route include;

“Needs improved exit from Milehouse for cars.”

“Always spend an incredibly long time at Manadon Roundabout which doubles the length of the journey.”

“...why does P&R have to stop at Milehouse? ... Why can't P&R go into Milehouse via Peverell entrance and exit via Milehouse exit instead of a ridiculous round trip - causing unnecessary delays via 5 extra sets of traffic lights?”

“I do get very frustrated at the bus service - it's SUCH a main route for commuters. Marjon is a big employer and the hospital etc... and Peverell is a perfect place to live - lots of people are doing this commute (as we can see by the massive car problems!!) It would seem obvious to have buses every 10 minutes just flying up and down that stretch of road. Outland Road seems very poorly connected...”

“The route is excellent - very direct. However, delays usually occur between Derriford and Milehouse, so the bus is often late to Milehouse. It would be best if the Milehouse service was separate from the George Junction service. The majority of PR1 users get on at Milehouse. It's silly that they all have to be late because of delays out of town, for the benefit of half a dozen George passengers.”

3.5.7 Section 7

Section 7 is the last section that the bus users were asked to comment on. It runs from Milehouse, past the bus depot through to Royal Parade. 64.1% of bus users felt that this section of the route needed measures to improve journey times and the reliability of bus services (see Table 16). Most of the comments categorised under section 7 fall between sections 6 and 7 by mainly referring to Milehouse Park & Ride;

“The major delay area on my journey home (back to Milehouse), is always the hill leading down to the Pennycomequick roundabout. I think a traffic light system should be used when leaving Milehouse, as the traffic on the other road never let cars out!!”

“One problem is no bus shelter at Milehouse and when it rains and the bus driver is aware you're coming, they then drive off!!!!”

“Only issue I have that often the bus is delayed leaving Milehouse. Because the more people the driver waits for is the more people are late - and get waited for! (does that make sense).I think the on site Inspectors should be on hand to ensure the bus leaves at the right time and late comers wait of the next bus.”

“The most common delay is getting out of Milehouse in a car. You have to compete with traffic from the Mayflower Centre. The whole system at Milehouse needs to be

reviewed and improved. Also the reason why I do not catch the bus from the George is that it is slower, more costly and less environmentally friendly than a car.”

“When we get to Milehouse, where there is generally a queue, can there be ticket machines, so those people could purchase a ticket prior to getting on the bus?

Otherwise it adds a lot of time onto my journey from the George.”

Table 16

Support for improvements between Milehouse & Royal Parade

	Frequency	Percent	Cumulative Percent
Strongly Support	78	40.0	40.0
Support	47	24.1	64.1
Neither/Nor	49	25.1	89.2
Don't really support	7	3.6	92.8
Do not support at all	14	7.2	100.0
Total	195	100.0	

3.6 Further Comments

Some of the comments made in this section related to more than one section of the route or were very general in nature, some of these included;

“The 'bus-only' lanes enable buses to make progress even during rush hours - pity they are not continuous along the whole route.”

“Although I would support any improvements made, it is difficult to imagine how the present service could reasonably be improved. Fares must be kept competitive as at present, to dissuade cars from going into town. An excellent service.”

“Bus lanes a great bonus, it is a pity that drivers are frequently held up by cyclists using it especially when cycle paths are provided on the pavement.”

“Need more information at bus stops regarding bus routes, especially those with A, B, C possibilities.”

“Continuous bus lanes from Royal Parade to Derriford would and should be designated. I would also suggest that smaller vehicles operated outside 'peak' times would be sensible especially on route through areas of high density housing where larger vehicles are more difficult to manoeuvre.”

“Frequency of buses in theory is very good, but in practice probably due to high traffic volumes between 8.00-9.00am, services seem to be 'clustered' with up to 5 buses, often arriving at once, or within a few minutes of each other. We need more public transport on routes in/out of the city centre otherwise this problem will/can only increase.”

“Overall quite satisfied with the bus service. Main issue is at certain stops, only service numbers and times of departure are available, so you don't know where they go or how long the journeys take. The 'real time' update service at Royal Parade and Mutley are very useful.”

“The stops are at reasonable distances. Bus lanes/lights would speed travel and help to avoid traffic. Older buses have little leg room. Newer ones are generally ok. My biggest gripe is reliability of departure.”

“...As a disability employment consultant, I am curious to why disabled people with a free bus pass are only regarded as disabled after 09.30. Although these passes are most welcome, disabled people have a need to travel before 09.30. Generally I think the bus service on this route is very good.”

“Very reliable from where I get the bus because it's on a main route (Mannamead Road). However, better services needed on all routes through city. Also needed for more cross city routes e.g. Plymstock to Derriford. I strongly support bus lanes and bus priority over cars.”

4. What we are already doing!

- We are producing a Northern Corridor Transport Strategy to cover all modes of travel with the main emphasis on improving the quality of the public transport offer. The comments obtained from this survey are helping to develop this strategy
- P&R extension at The George to include a new southern access point – to be completed 2009.
- Improvements to the Derriford Hospital entrance - in the short term we are working with Derriford Hospital to improve waiting facilities and reduce hold ups due to inappropriate parking - 2008/09. We have recently installed brand new bus shelters at the hospital and these will be equipped with real time passenger information in 2009. In the medium term, we are working with the Derriford Hospital to secure the provision of a High Quality Public Transport Interchange, which will address the majority of the problems currently experienced at the main entrance - 2009/10
- Alteration to the Milehouse P&R facility to enable buses from The George to stop on road thus removing the need to do the 'loop' through the main site, improving journey times and reducing delays to passengers - 2007/08
- Green Travel Pass scheme - multi operator discounted bus pass available to the employees of all companies with an active travel plan. The scheme is promoted across the City to all businesses through the Chamberlink magazine. This means a multi operator season ticket is available
- Timetable guides are now produced in a single book and the Council will be producing new guides in 2009/10.
- The Council will send out timetables to individuals if they provide their name, address and which timetables they would like to receive
- Replacement of 1200 bus stop flags across the city continues. This work means all bus stops will have new timetable cases. This will allow the relevant bus operators to display timetables along the routes.
- All the new bus stops have SMS codes on them. Texting this code to 84268 will allow the next three departures from that stop to be sent to the person's mobile phone. Texts cost 25p plus the standard operating charge
- The Council has improved the clarity of bus service information in the City Centre by replacing all the 'bus shelter header boards' on Royal Parade and the viaduct. This is an ongoing piece of work to cover the whole city

- ‘Northern Connect’ shuttle bus service was launched in March 2008. This innovative taxibus/conventional bus service, connects the transport hubs of Derriford Hospital and the George Park and Ride with industrial estates in the north of the city improving access to employment
- To help to improve access to buses, all buses will be low floor by 2017. A high proportion of buses are already low floor
- Work is being carried out to explore whether more bus priority can be provided at traffic lights on the Northern Corridor
- The attendants at Milehouse Park and Ride now provide an off-bus ticketing scheme to passengers in the morning peak; this is helping to make the service fast and efficient and was implemented following customer comments in 2007
- Five Screen FX pods in Drake Circus have links to RTPI displays for the bus stops near the shopping centre. In addition RTPI displays have been installed in the Charles Street bus shelters.
- Derriford Hospital – consideration being given to the suitability of designating bus shelters to different bus services running city bound and northbound
- Real time passenger information displays will be provided at key stops on the northern corridor in 2009.
- Woolwell Roundabout – investigating solutions to existing merge and bus stop access problems on the roundabout
- A brand new journey planning website, *Plymgo.com*, has been launched. The website has been designed to plan journeys on foot, by bike and by public transport and the private car with the results reported in terms of; distance travelled, time taken, calories burnt whilst on route and the carbon value of your journey
- We have developed a comprehensive programme of works for 2009/10 which has been directly informed by the survey results and comments received. Information on what these improvements are and how they help to tackle the issues raised during the consultation will be posted on the website in April 2009.

Responses to specific bus service queries:

- A fast direct link from the North of the City to the City Centre is provided by FDC - the Tavy Linx service 83 doesn't call at the hospital and is therefore a 'through service' to the city centre via Outland Road
- Direct links from Crownhill to Plympton are available. The service is operated by Target Travel and has an hourly frequency.

5. Further Recommendations

This is not an exhaustive or conclusive list as other work will continue to be developed. These recommendations are in direct response to the feedback provided in the surveys and other evidence needs to be collected before a decision can be made as to whether these recommendations can be taken forward;

- Review the suitability of the existing highway infrastructure for all modes of transport
- Wherever possible ensure bus lanes are complimented by the provision of dedicated cycle lanes or enough width to allow a bus to overtake cyclists without need to enter other traffic lanes
- Undertake a programme of pedestrian crossing improvements (e.g. refuge islands) on the northern corridor to link up bus stops enabling better access to public transport
- The George Junction - need to address the existing merge problems northbound – investigate potential solutions
- Crownhill Lower Level – investigate the issue of poor visibility when waiting for a bus, particularly when one service stops and blocks the view. Explore potential solutions
- Milehouse P&R - in the short term explore design options to resolve the exit problems currently experienced from the P&R car park. In the medium to long term, ensure the Life Centre fully considers the needs of P&R users and is taken forward into any option proposals for the junctions serving the site
- Golden Hind to Tor Lane – investigate further the problem of parking in the bus lane city bound. Consider both enforcement and the availability of parking spaces – investigate funding to support additional enforcement.
- Manadon Roundabout/St Peters Road - look at issue raised by respondents about bus drivers not seeing people waiting at bus stop (Manadon Roundabout) due to concentration of the bus driver on traffic circulating the roundabout, turning left into St Peters Road or exiting the A38 slip road at that location. Research which buses are due to stop at that location as not all buses may be scheduled to stop. If necessary, consider relocating the bus stop to St Peters Road and/or re-routing northbound services along the 'old' Tavistock Road served by a bus gate onto the A386
- Mutley Plain - address problem of inappropriate parking both on road and inappropriate parking in the bus stops. Explore potential to implement dedicated enforcement for Air Quality Management Areas and assess the requirement for loading facilities - could form part of the overall package of feasibility works for the Mutley Plain area

- Mutley Plain/Alexandra Road - consider converting middle lane on approach to junction to bus only – could form part of the overall package of feasibility works for the Mutley Plain area
- Outland Road – look at solutions for resolving congestion problems which cause delays to the P&R and local bus services
- Explore the viability of a Mutley - Outland Road - Milehouse - City Centre loop bus service – need to consider as part of the potential transport links for the Life Centre.

**Consultation & Community Engagement Officer
Transport Strategy & Programme Management
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Appendix

Table 1

Correlations

			How often do you use the bus?	Satisfaction with reliability 2
Spearman's rho	How often do you use the bus?	Correlation Coefficient	1.000	-.152**
		Sig. (2-tailed)	.	.000
		N	755	755
	Satisfaction with reliability 2	Correlation Coefficient	-.152**	1.000
		Sig. (2-tailed)	.000	.
		N	755	755

** . Correlation is significant at the 0.01 level (2-tailed).

Table 2

Correlations

			How often do you use the bus?	Satisfaction with cost of fares
Spearman's rho	How often do you use the bus?	Correlation Coefficient	1.000	-.114**
		Sig. (2-tailed)	.	.003
		N	659	659
	Satisfaction with cost of fares	Correlation Coefficient	-.114**	1.000
		Sig. (2-tailed)	.003	.
		N	659	659

** . Correlation is significant at the 0.01 level (2-tailed).

Table 3

Correlations

			How often do you use the bus?	Satisfaction with Cleanliness & Comfort
Spearman's rho	How often do you use the bus?	Correlation Coefficient	1.000	-.142**
		Sig. (2-tailed)	.	.000
		N	772	772
	Satisfaction with Cleanliness & Comfort	Correlation Coefficient	-.142**	1.000
		Sig. (2-tailed)	.000	.
		N	772	772

** . Correlation is significant at the 0.01 level (2-tailed).

Table 4

Correlations

			How often do you use the bus?	Satisfaction with Frequency of Service
Spearman's rho	How often do you use the bus?	Correlation Coefficient	1.000	-.121**
		Sig. (2-tailed)	.	.001
		N	769	769
	Satisfaction with Frequency of Service	Correlation Coefficient	-.121**	1.000
		Sig. (2-tailed)	.001	.
		N	769	769

** . Correlation is significant at the 0.01 level (2-tailed).

Table 5

Correlations

			How often do you use the bus?	Satisfaction with PT Information
Spearman's rho	How often do you use the bus?	Correlation Coefficient	1.000	-.117**
		Sig. (2-tailed)	.	.001
		N	749	749
	Satisfaction with PT Information	Correlation Coefficient	-.117**	1.000
		Sig. (2-tailed)	.001	.
		N	749	749

** . Correlation is significant at the 0.01 level (2-tailed).

Table 6

Correlations

			How often do you use the bus?	Satisfaction with Journey Times
Spearman's rho	How often do you use the bus?	Correlation Coefficient	1.000	-.118**
		Sig. (2-tailed)	.	.001
		N	761	761
	Satisfaction with Journey Times	Correlation Coefficient	-.118**	1.000
		Sig. (2-tailed)	.001	.
		N	761	761

** . Correlation is significant at the 0.01 level (2-tailed).

Table 7**Correlations**

			How often do you use the bus?	Satisfaction with Overall Service
Spearman's rho	How often do you use the bus?	Correlation Coefficient	1.000	-.132**
		Sig. (2-tailed)	.	.000
		N	760	760
	Satisfaction with Overall Service	Correlation Coefficient	-.132**	1.000
		Sig. (2-tailed)	.000	.
		N	760	760

** . Correlation is significant at the 0.01 level (2-tailed).