Appendix I: The survey Form

Question 1: **How often do you catch a bus?** (Number of trips per week)

- ☐ Less than one trip
- ☐ 1 travel
- ☐ 2 travels
- ☐ 3 - 6 travels
- ☐ 7 – 10 travels
- ☐ Over 10 travels

Question 2: **Where do you catch a bus to?** (You can pick more than one)

- ☐ Home
- ☐ Work
- ☐ Study institute
- ☐ Other purposes

Others? _____

Question 3: **How long is your travel time in average?** From A to B

- ○ Less than 15 min
- ◉ 15-25 min
- ○ 25-35 min
- ○ 35-45 min
- ○ 45-60 min

- Over than one hour

Question 4: **Do you have a connection in your trip?**

- Yes
- No

Question 5: **How long do you wait for the bus in the connection?**

- Less than 5 min
- 5-10 min
- Over 10 min

Question 6: **In scale from 1-5; what are the most important factors for you regard public transport?**

	not very important	not important	Neutral	important	very important	not relevant
Travel Time from A to B						
Fares						
Waiting time						
Information: Time table, digital information plate, etc.						
Walking distance to bus stop						
Seats in the bus						
Bicycle measures: Parking, lane, accessibility to the bus, etc.						
Bus arrives on time						

	not very important	not important	Neutral	important	very important	not relevant
High Frequency	○	○	○	○	○	○

Question 7: **If you have accessibility to a car, would you take the bus? Why?**

- ☐ everyday
- ☐ once a week
- ☐ weekends
- ☐ rarely

Why?

Question 8: **How long does it take you to reach the nearest bus stop?** (From your daily journey start point)

- ○ Less than 7 min
- ○ 7-12 min.
- ○ Over 12 min.

Question 9: **In scale from 1-5; which of these factors could improve the current public transport service along Fv.44?**

	Not important	Not so important	Neutral	Important	Very important	not relevant
Travel Time from A to B	○	○	○	○	○	○
Fares	○	○	○	○	○	○
Waiting time	○	○	○	○	○	○
Information: Time table, digital	○	○	○	○	○	○

	Not important	Not so important	Neutral	Important	Very important	not relevant
information plate, etc.						
Walking distance to bus stop						
Seats in the bus						
Parking, lane, accessibility to the bus, etc.						
Bus arrives on time						
High Frequency						

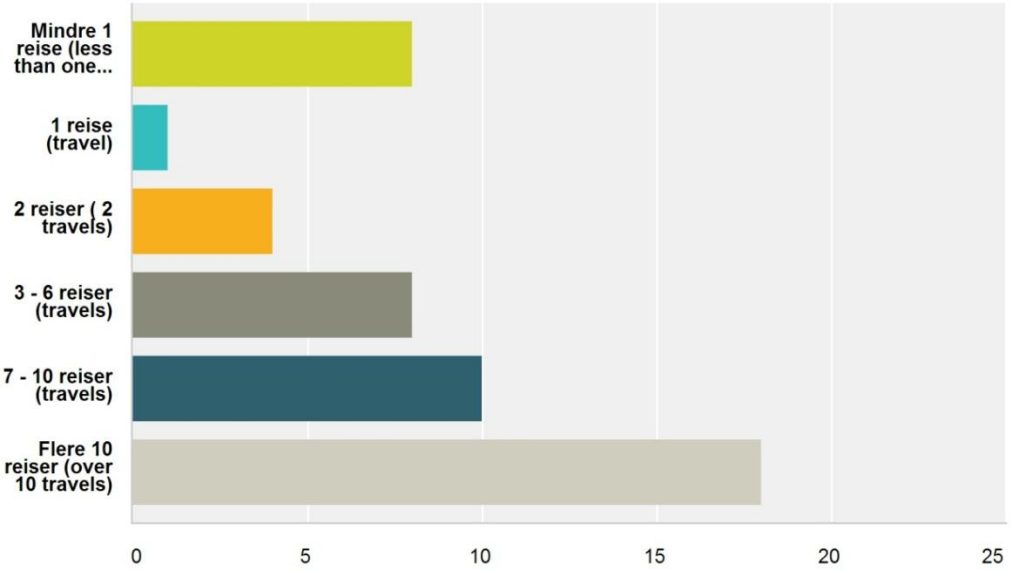
Others?

Appendix II: The Survey Answers

Question 1: **How often do you catch a bus?** (Number of trips per week)

- Answered: 44
- Skipped: 0

Answer Choices	Responses % (Answers)
Less than one trip	13.64% (6)
1 travel	2.27% (1)
2 travels	9.09% (4)
3 - 6 travels	18.18% (8)
7 - 10 travels	22.73% (10)
Over 10 travels	38.64% (17)
Total Respondents: 44	

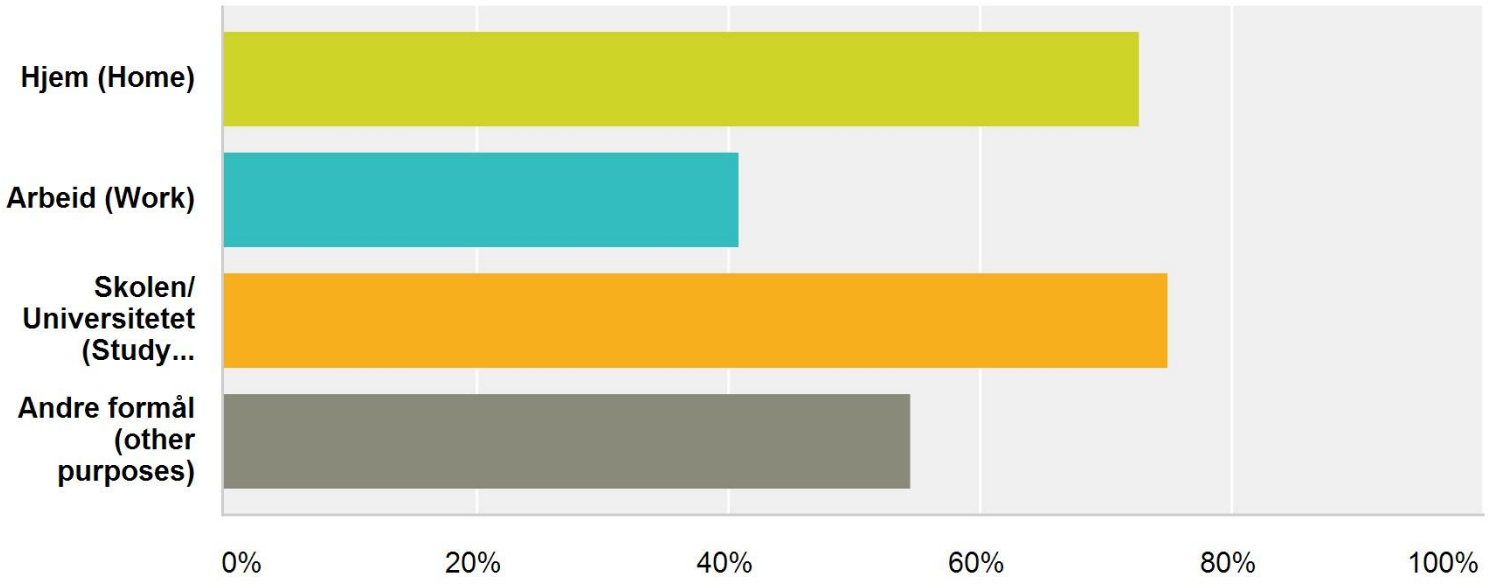


Question 2: **Where do you catch a bus to?** (You can pick more than one)

- Answered: 44
- Skipped: 0

Answer Choices	Responses % (answeres)
Home	**72.73%**(32)
Work	**40.91%**(18)
Study Institute	**75%**(33)
Other purpose	**54.55%**(24)
Total Respondents: 44	
Comments (12) Trening, shopping 5/24/2013 5:52 PM shopping, social events 5/16/2013 10:27 AM Til og fra sentrum 5/16/2013 10:26 AM Visit friends and relatives in Klepp and Bryne 5/9/2013 12:36 PM Butikk, Stavanger Sentrum 5/9/2013 2:56 AM shopping, other dorms, friend's house 5/8/2013 11:36 PM shopping, traveling 5/8/2013 6:36 PM byen 5/8/2013 5:03 PM handel 5/8/2013 4:44 PM Shopping, friends/social events 5/8/2013 1:19 PM Fest, Flyplassen, og byen 5/8/2013 12:27 PM Downtown - to meet my friends; Airport - when travelling/ picking someone up from the	

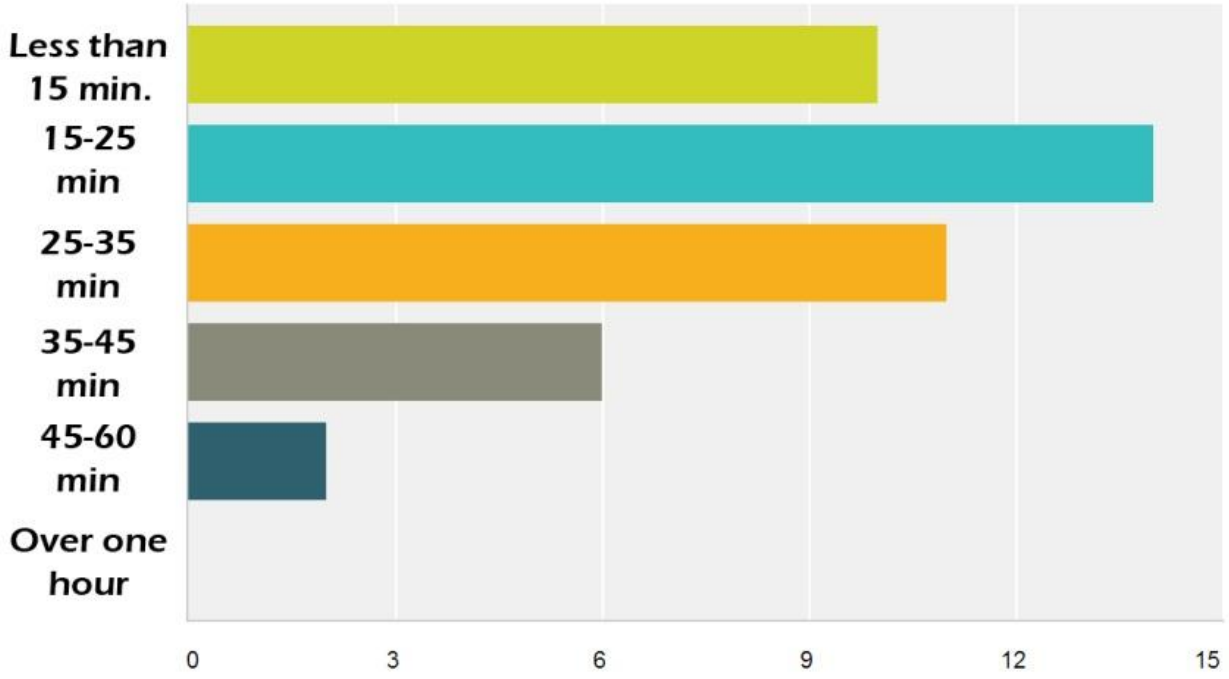
airport
5/8/2013 12:23 PM



Question 3: **How long is your travel time in average?** From A to B

- Answered: 43
- Skipped: 1

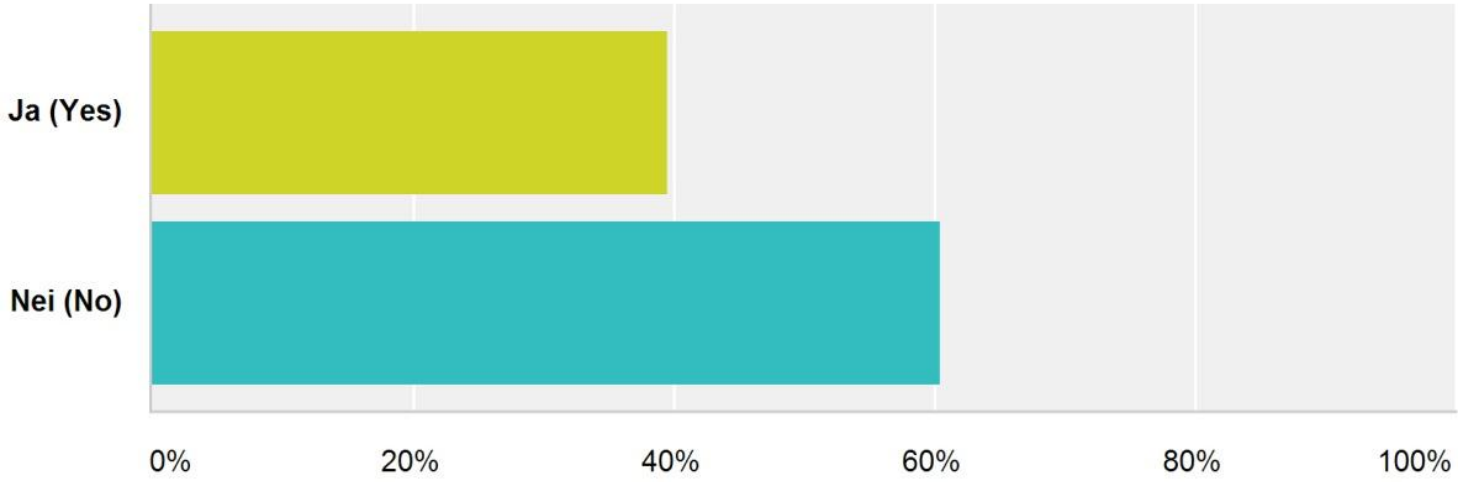
Answer Choices	Responses% (Answers)
Less than 15 min	**23.26%** (10)
15-25 min	**32.56%** (14)
25-35 min	**25.58%** (11)
35-45 min	**13.95%** (6)
45-60 min	**4.65%** (2)
over than one hour	**0%** (0)
Total	43



Question 4: **Do you have a connection in your trip?**

- Answered: 43
- Skipped: 1

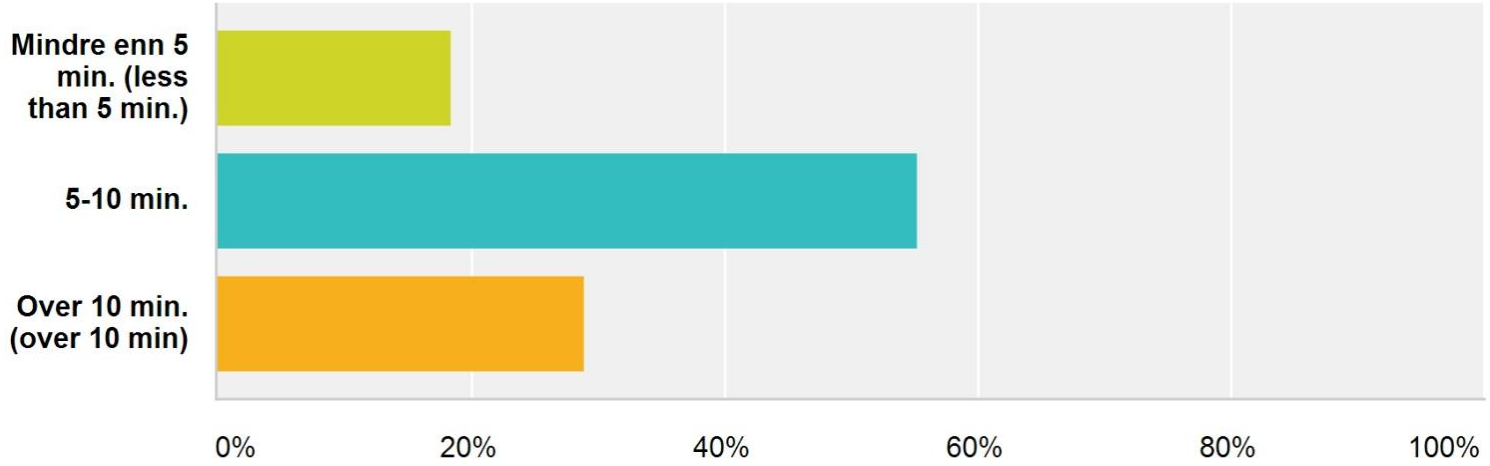
Answer Choices	Responses % (Answers)
Yes	**39.53%** (17)
No	**60.47%** (26)
Total	43



Question 5: **How long do you wait for the bus in the connection?**

- Answered: 38
- Skipped: 6

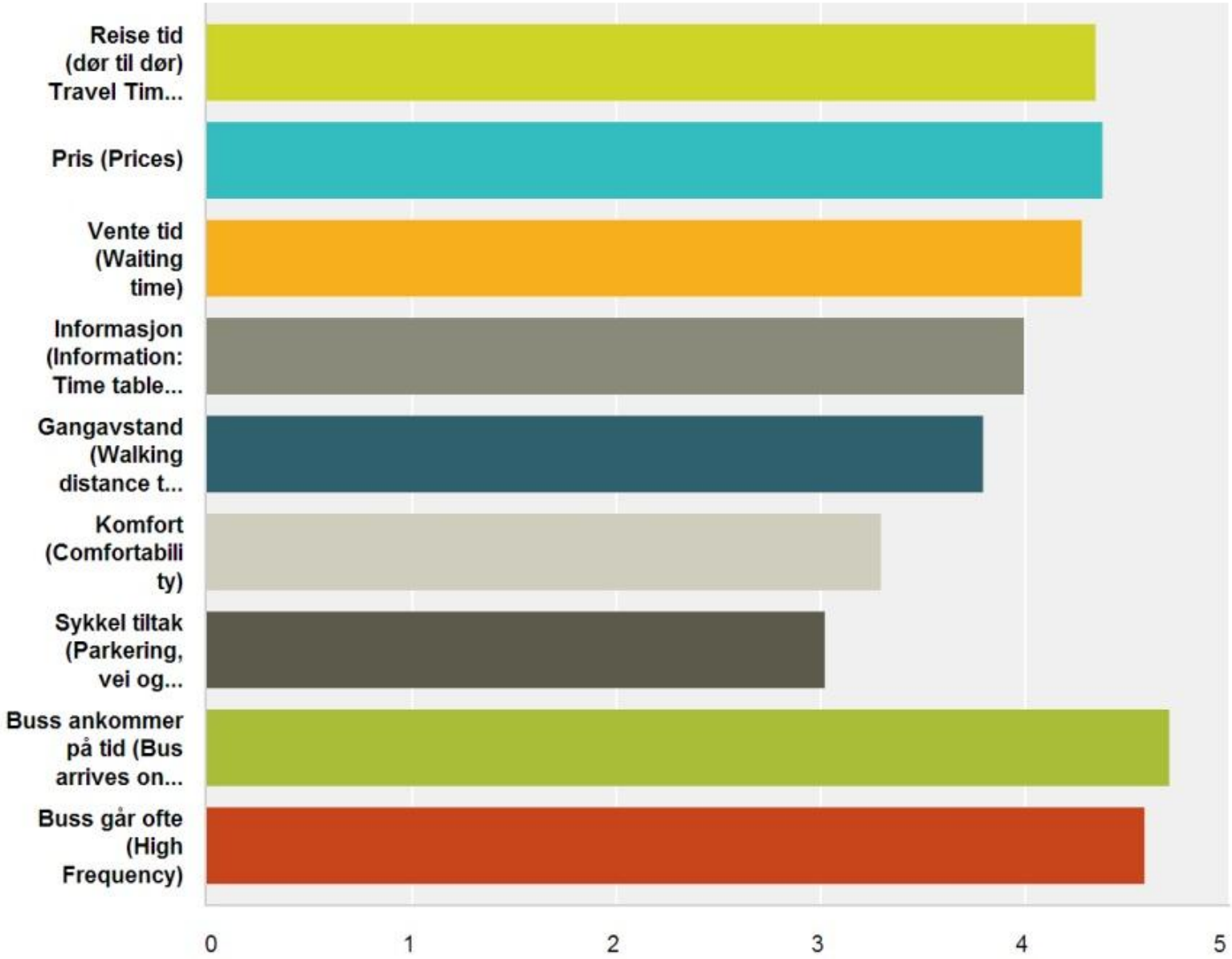
Answer Choices	Responses % (answers)
Mindre enn 5 min. (less than 5 min.)	**18.42%** (7)
5-10 min.	**55.26%** (21)
Over 10 min. (over 10 min)	**28.95%** (11)
Total Respondents: 38	
Comments (4) Have no connection 5/8/2013 8:53 PM Occasionally it will be extraordinarily late unreasonably! 5/8/2013 7:28 PM Har ingen "Connection" i reisen, men jeg venter ofte på bussen ettersom den ikke kommer når den skal 5/8/2013 12:35 PM It depends of the occasion/ destination/ period of the year/ day of the week/ time/ Av og til bør jeg ta flere buss i reisen min. Most of the times I only need to take one buss 5/8/2013 12:26 PM	



Question 6: **In scale from 1-5; what are the most important factors for you regard public transport?**

- Answered: 40
- Skipped: 4

	Not very important	Not important	Neutral	Important	Very important	not relevant	Total	Average Rating
Travel Time from A to B	5% 2	0% 0	7.50% 3	30% 12	57.50% 23	0% 0	40	4.35
Prices	2.50% 1	0% 0	12.50% 5	25% 10	57.50% 23	2.50% 1	40	4.38
Waiting time	0% 0	5% 2	10% 4	35% 14	47.50% 19	2.50% 1	40	4.28
Information	5% 2	5% 2	7.50% 3	50% 20	32.50% 13	0% 0	40	4.00
Walking distance	0% 0	5% 2	22.50% 9	60% 24	12.50% 5	0% 0	40	3.80
Seating places	5% 2	15% 6	35% 14	35% 14	10% 4	0% 0	40	3.30
Bicycle measures	17.50% 7	17.50% 7	22.50% 9	30% 12	12.50% 5	0% 0	40	3.03
Punctuality	2.50% 1	0% 0	0% 0	17.50% 7	75% 30	5% 2	40	4.71
Regularity	0% 0	2.50% 1	2.50% 1	27.50% 11	65% 26	2.50% 1	40	4.59


Reise tid (dør til dør) Travel Tim...
Pris (Prices)
Vente tid (Waiting time)
Informasjon (Information: Time table...
Gangavstand (Walking distance t...
Komfort (Comfortabili ty)
Sykkel tiltak (Parkering, vei og...
Buss ankommer på tid (Bus arrives on...
Buss går ofte (High Frequency)
0
1
2
3
4
5

Question 7: **If you have accessibility to a car, would you take the bus? Why?**

- Answered: 38
- Skipped: 6

Answer Choices	Responses% (answers)
Everyday	**18.42 %** (7)
Once a week	**5.26 %** (2)
Weekends	**7.89 %** (3)
Rarely	**73.68 %** (28)
Total Respondents: 38	

Comments (23)

Busses here are ridiculously expensive
5/18/2013 9:59 PM

It's easier, faster and i would not have to walk for 10 min. to get to it, like i have to with the bus.
5/16/2013 10:29 AM

For work, at late evenings.
5/16/2013 10:29 AM

jeg ville ikke tatt bussen pga at den bare går to ganger i timen. Så det er mye enklere med bil.
5/15/2013 4:28 PM

Busses are expensive and don't worth it.
5/10/2013 7:24 AM

har ikke tilgang til bil
5/9/2013 6:42 PM

If I go out to a party
5/9/2013 4:53 PM

ventetid og reisetid
5/9/2013 1:03 PM

It takes time to wait for the bus and I have to adjust to the schedule of the bus, and not me taking control of my time
5/9/2013 12:38 PM

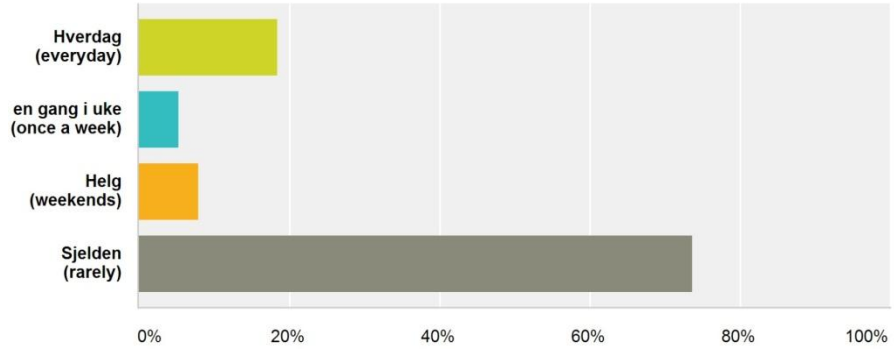
bus is not punctual, it takes more time to go with bus
5/9/2013 12:07 PM

Cause less traffic, less accident.
5/8/2013 8:55 PM

I cannot understand the Norwegian language, so I cannot answer it.
5/8/2013 7:30 PM

I think that is the solution for transportation problem: anyone must be able take the bus anytime.
5/8/2013 6:39 PM

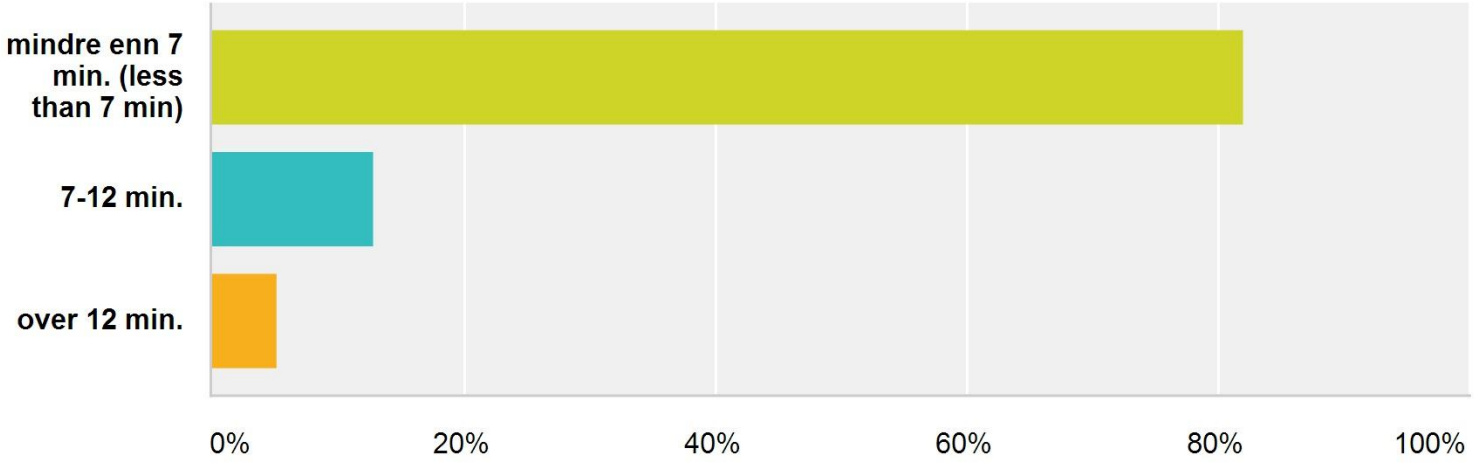
Bil er et letter framkomstmiddel
5/8/2013 5:27 PM
for å ta en drink
5/8/2013 5:05 PM
Det er mer praktisk å kjøre bil
5/8/2013 4:45 PM
Do not have car
5/8/2013 3:36 PM
har ikke bil
5/8/2013 2:21 PM
I don't have access to a car
5/8/2013 2:13 PM
Går fortere å ta buss til skolen enn å kjøre egen bil, i rush-tidene.
5/8/2013 1:21 PM
Slipper parkering
5/8/2013 12:50 PM
I don't always have access to a car. On short distances I prefer to cycle or take a bus: det er mer miljøvenlig, bylligere, tryggere (safer for me and the others), mindre stress (ingen må vente på meg, I do not like feeling that I have to owe someone for making me favors/ driving me anywhere) osv.
5/8/2013 12:33 PM
Tenker miljø
5/8/2013 12:28 PM



Question 8: **How long does it take you to reach the nearest bus stop?** (From your daily journey start point)

- Answered: 39
- Skipped: 5

Answer Choices	Responses% (answeres)
mindre enn 7 min. (less than 7 min)	82.05 % (32)
7-12 min.	12.82 % (5)
over 12 min.	5.13 % (2)
Total	39



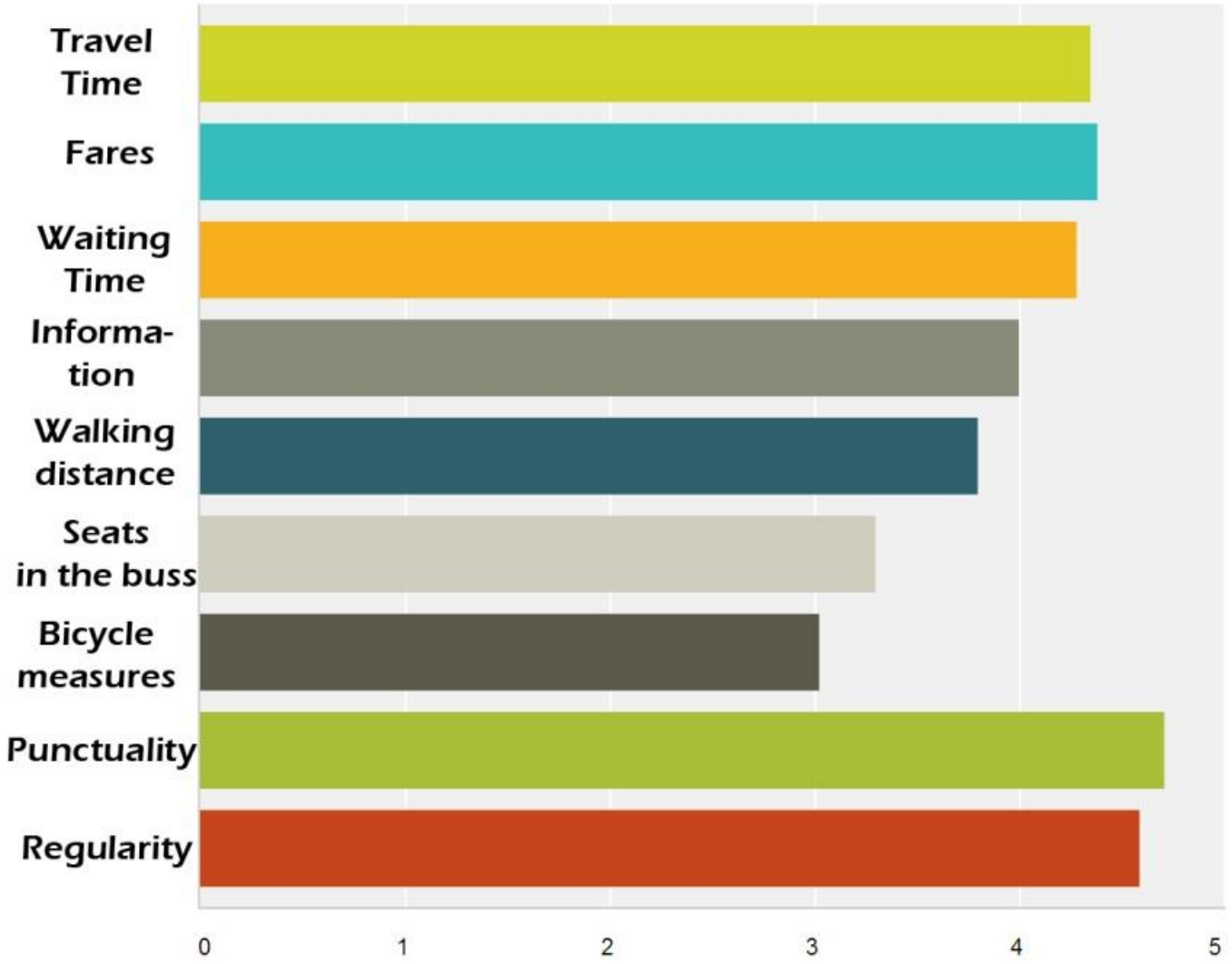
Question 9: **In scale from 1-5; which of these factors could improve the current public transport service along Fv.44?**

- Answered: 39
- Skipped: 5

	Not important	Not so important	Neutral	Important	Very important	not relevant	Total	Average Rating
Travel Time	0% 0	5.56 % 2	19.44 % 7	16.67 % 6	58.33 % 21	0% 0	36	4.28
Fares	0% 0	5.41 % 2	8.11 % 3	35.14 % 13	51.35 % 19	0% 0	37	4.32
Waiting time	0% 0	2.70 % 1	10.81 % 4	27.03 % 10	59.46 % 22	0% 0	37	4.43
Information:	0% 0	10.81 % 4	16.22 % 6	43.24 % 16	29.73 % 11	0% 0	37	3.92
Walking distance	2.70 % 1	5.41 % 2	37.84 % 14	40.54 % 15	13.51% 5	0% 0	37	3.57
Seats in the bus	2.70 % 1	16.22 % 6	37.84 % 14	27.03 % 10	16.22 % 6	0% 0	37	3.38
Bicycle measures	13.51 % 5	24.32 % 9	27.03 % 10	24.32 % 9	10.81 % 4	0% 0	37	2.95
Punctuality	0% 0	2.70 % 1	2.70 % 1	13.51 % 5	75.68 % 28	5.41 % 2	37	4.71
Regularity	0% 0	2.70 % 1	8.11 % 3	24.32 % 9	64.86 % 24	0% 0	37	4.51
Comments (2)								

reisetilbudet. Hvor bussene går til. og hvor lett og lang tid det tar fra a via b til c
5/8/2013 5:08 PM

Polite drivers, that does not transport people like potato bags...
5/8/2013 2:22 PM


Travel Time
Fares
Waiting Time
Informa-tion
Walking distance
Seats in the buss
Bicycle measures
Punctuality
Regularity
0
1
2
3
4
5

Appendix III: Travel Time Survey along Fv.44[1]

Travel time survey from Stavanger to Sandnes in the morning:

Morning Stavanger-Sandnes	Route time	start	finish	Travel time	length	km/h
21.08.2012	06:52	06:52:45	07:35:12	00:42:27	16.5	23,3
21.08.2012	07:07	07:07:56	07:51:14	00:43:18	16.5	22,9
21.08.2012	08:07	08:19:23	08:56:23	00:37:00	16.5	26,8
21.08.2012	08:37	08:43:51	09:20:20	00:36:29	16.5	27,1
22.08.2012	06:52	06:52:17	07:32:36	00:40:19	16.5	24,6
22.08.2012	07:07	07:07:05	07:43:00	00:35:55	16.5	27,6
22.08.2012	07:37	07:37:06	08:20:29	00:43:23	16.5	22,8
22.08.2012	07:52	07:55:35	08:42:00	00:46:25	16.5	21,3
22.08.2012	08:07	08:10:00	09:09:53	00:59:53	16.5	16,5
22.08.2012	08:22	08:22:34	09:17:58	00:55:24	16.5	17,9
			average	00:43:58		23.1

Morning Stavanger-Sandnes	start	finish	Travel time	length	km/h
04.12.2012	06:46:18	07:14:44	00:28:26	15.6	32,9
05.12.2012	06:54:07	07:24:23	00:30:16	15.6	30,9
04.12.2012	07:02:37	07:32:01	00:29:24	15.6	31,8
05.12.2012	07:10:56	07:43:24	00:32:28	15.6	28,8
04.12.2012	07:14:44	07:48:22	00:33:38	15.6	27,8

[1] Source: Norwegian Road Authority, Stavanger office 2013

05.12.2012	07:28:44	08:02:51	00:34:07	15.6	27,4
04.12.2012	07:47:52	08:28:10	00:40:18	15.6	23,2
05.12.2012	08:00:51	08:43:11	00:42:20	15.6	22,1
04.12.2012	08:15:16	08:50:28	00:35:12	15.6	26,6
04.12.2012	08:31:30	09:02:44	00:31:14	15.6	30,0
		average	00:37:33		31

Travel time survey from Sandnes to Stavanger in the morning:

Morning Sandnes-Stavanger	Route time	start	finish	Travel time	length	km/h
21.08.2012	07:26	07:26:18	08:13:58	00:47:40	16.3	20,5
21.08.2012	07:41	07:41:42	08:33:20	00:51:38	16.3	18,9
21.08.2012	07:48	07:48:20	08:34:10	00:45:50	16.3	21,3
21.08.2012	08:18	08:17:48	08:58:23	00:40:35	16.3	24,1
22.08.2012	08:48	08:50:07	09:28:53	00:38:46	16.3	25,2
22.08.2012	06:56	06:55:54	07:35:05	00:39:11	16.3	25,0
22.08.2012	07:11	07:10:59	07:50:56	00:39:57	16.3	24,5
22.08.2012	07:26	07:26:17	08:11:00	00:44:43	16.3	21,9
22.08.2012	07:41	07:41:57	08:31:58	00:50:01	16.3	19,6
22.08.2012	07:48	07:48:28	08:33:30	00:45:02	16.3	21,7
			average	00:44:33	16.3	22.7

Morning Sandnes-		start	finish	Travel time	length	km/h

Stavanger					
04.12.2012	06:47:34	07:14:38	00:27:04	15.3	33,9
05.12.2012	06:59:32	07:28:36	00:29:04	15.3	31,6
04.12.2012	07:15:50	07:47:48	00:31:58	15.3	28,7
05.12.2012	07:25:39	08:00:43	00:35:04	15.3	26,2
04.12.2012	07:35:37	08:15:42	00:40:05	15.3	22,9
05.12.2012	07:47:44	08:31:24	00:43:40	15.3	21,0
04.12.2012	07:49:38	08:31:24	00:41:46	15.3	22,0
05.12.2012	08:04:55	08:44:11	00:39:16	15.3	23,4
04.12.2012	08:28:52	08:56:54	00:28:02	15.3	32,7
05.12.2012	08:44:15	09:12:15	00:28:00	15.3	32,8
		average	00:34:07	15.3	27.5

Travel time survey from Stavanger to Sandnes in the afternoon:

Afternoon Stavanger-Sandnes	Route time	start	finish	Travel time	length	km/h
21.08.2012	14:15	14:21:33	15:06:45	00:45:12	15.9	21,1
21.08.2012	14:45	14:45:39	15:29:01	00:43:22	15.9	22,0
21.08.2012	15:00	15:00:16	15:45:00	00:44:44	15.9	21,3
21.08.2012	15:15	15:15:27	15:58:07	00:42:40	15.9	22,4
21.08.2012	15:30	15:30:30	16:11:27	00:40:57	15.9	23,3
21.08.2012	15:45	15:46:48	16:31:39	00:44:51	15.9	21,3
21.08.2012	16:00	15:59:48	16:43:29	00:43:41	15.9	21,8
21.08.2012	16:15	16:14:55	16:54:10	00:39:15	15.9	24,3
22.08.2012	14:15	14:14:11	14:52:12	00:38:01	15.9	25,1

22.08.2012	14:45	14:45:34	15:35:33	00:49:59	15.9	19,1
22.08.2012	15:00	15:00:11	15:46:08	00:45:57	15.9	20,8
22.08.2012	15:30	15:30:37	16:11:23	00:40:46	15.9	23,4
22.08.2012	15:45	15:45:05	16:31:29	00:46:24	15.9	20,6
22.08.2012	16:00	16:04:37	16:45:51	00:41:14	15.9	23,1
22.08.2012	16:30	16:31:12	17:11:20	00:40:08	15.9	23,8
22.08.2012	16:45	16:45:42	17:23:41	00:37:59	15.9	25,1
			average	00:42:51	15.9	22.4

Afternoon Stavanger-Sandnes	start	finish	Travel time	length	km/h
04.12.2012	14:11:32	14:43:52	00:32:20	15.6	28,9
05.12.2012	14:15:07	14:48:59	00:33:52	15.6	27,6
04.12.2012	14:31:54	15:05:46	00:33:52	15.6	27,6
04.12.2012	14:45:03	15:24:27	00:39:24	15.6	23,8
05.12.2012	14:53:27	15:31:37	00:38:10	15.6	24,5
05.12.2012	15:02:57	15:48:44	00:45:47	15.6	20,4
05.12.2012	15:21:30	16:13:58	00:52:28	15.6	17,8
05.12.2012	16:20:05	16:55:18	00:35:13	15.6	26,6
05.12.2012	16:30:13	17:04:48	00:34:35	15.6	27,1
04.12.2012	14:11:32	14:43:52	00:32:20	15.6	28,9
		average	00:37:48		25.3

Travel time survey from Sandnes to Stavanger in the afternoon:

Afternoon Sandnes-Stavanger	Route time	start	finish	Travel time	length	km/h
21.08.2012	14:41	14:44:36	15:24:43	00:40:07	16.3	24,4
21.08.2012	14:56	14:56:11	15:37:24	00:41:13	16.3	23,7
21.08.2012	15:11	15:11:40	15:55:21	00:43:41	16.3	22,4
21.08.2012	15:26	15:26:51	16:09:17	00:42:26	16.3	23,0
22.08.2012	15:41	15:42:49	16:24:19	00:41:30	16.3	23,6
22.08.2012	15:56	15:56:18	16:37:39	00:41:21	16.3	23,7
22.08.2012	16:18	16:18:04	16:57:41	00:39:37	16.3	24,7
22.08.2012	14:26	14:28:55	15:19:53	00:50:58	16.3	19,2
22.08.2012	14:41	14:41:21	15:23:53	00:42:32	16.3	23,0
22.08.2012	14:56	14:56:27	15:46:28	00:50:01	16.3	19,6
22.08.2012	07:48	07:48:28	08:33:30	00:45:02	16.3	21,7
22.08.2012	08:18	08:18:01	09:01:42	00:43:41	16.3	22,4
22.08.2012	08:48	08:48:16	09:28:50	00:40:34	16.3	24,1
			average	00:43:26	16.3	22.7

Afternoon Sandnes-Stavanger	start	finish	Travel time	length	km/h
04.12.2012	14:14:51	14:44:57	00:30:06	15.3	30,5
05.12.2012	14:22:33	14:52:29	00:29:56	15.3	30,7
04.12.2012	14:44:50	15:16:24	00:31:34	15.3	29,1
05.12.2012	14:50:03	15:21:14	00:31:11	15.3	29,4

04.12.2012	15:09:32	15:50:24	00:40:52	15.3	22,5
04.12.2012	15:24:57	16:14:05	00:49:08	15.3	18,7
05.12.2012	15:34:41	16:10:21	00:35:40	15.3	25,7
05.12.2012	15:50:36	16:30:07	00:39:31	15.3	23,2
05.12.2012	16:14:58	16:50:13	00:35:15	15.3	26,0
04.12.2012	14:14:51	14:44:57	00:30:06	15.3	30,5
		average	00:35:31	15.3	26.6

Appendix IV: The Test Survey

Question 1: **Hvor ofte tar du buss? (antall reise per uke)**

How often do you catch a bus? (number of travels per week)

- ☐ 1 reise (travel)
- ☐ 2 reiser (2 travels)
- ☐ 3 - 6 reiser (travels)
- ☐ 8 - 10 reiser (travels)
- ☐ > 10 reiser (over 10 travels)

Question 2: **Hva syns du om kollektivtransport (buss) tilbud langs Hillevågveien-Marieroveien?**

What do you think about the public transport sercive (bus) among Hillevågveien-Marieroveien?

- ☐ Meget Godt (very good)
- ☐ God (good)
- ☐ Jeg vet ikke (I do not know)
- ☐ Dårlig (very bad)
- ☐ Meget dårlig (very bad)

Hvorfor? Why? _____

Question 3: **Tar du bussen, dersom du har tilgjengelighet til bil? og Hvorfor?**

If you have accessability to a car, Would you take the bus? Why?

- ☐ Ja, Hvorfor? (Yes, and Why?)
- ☐ Nei, Hvorfor? (No, and Why?)

Hvorfor? Why?

Question 4: **Hva syns du traffiksikkerhet på midtstilte kollektiftransport langs Fv.44 (hillevågveien-Marieroveien) ?**

What do you think about the street safety of the busway among Country street 44 (hillevågveien-Marieroveien)?

- ☐ Meget Godt (very good)
- ☐ God (good)
- ☐ Jeg vet ikke (I do not know)
- ☐ Dårlig (very bad)
- ☐ Meget dårlig (very bad)

Annet (other)

Question 5: **Hva er de viktigste tiltakene for deg i forhold til kollektivtransport?**

What are the most important citreia for you regards public transport?

	Svært viktig (very important)	Viktig (important)	ikke viktig (not important)	ikke så viktig (not very important)	Ikke relevant
Reise tid (dør til dør) Travel Time from A to B	○	○	○	○	○
Pris (Prices)	○	○	○	○	○
Vente tid (Waiting time)	○	○	○	○	○
Informasjon (information: Time table, digital information plate, etc)	○	○	○	○	○

	Svært viktig (very important)	Viktig (important)	ikke viktig (not important)	ikke så viktig (not very important)	Ikke relevant
Gangavstand (walking distance to bus stop)	○	○	○	○	○
Sykkel tiltak (parkering, vei og tilgjengelighet på bussen) Bicycle measures (Parking, lane, accessability to the bus, etc)	○	○	○	○	○
Bil parkering (car parking)	○	○	○	○	○
Høyt frekvens (High Frequency)	○	○	○	○	○

Question 6: **Du tar buss til: (Du kan velge flere)**

You catch a bus for: (you can pick more than one)

- ☐ Arbeid (work)
- ☐ Skolen/ Universitetet (study institute)
- ☐ ander formål (other purpose)
- ☐ Jeg tar ikke buss (I do not take the bus)

Annet (vennligst spesifiser) Others?

Question 7: **Hvor lenge er resietiden med buss? (dør til dør)**

How long is your travel time in avarege? From A to B

- minder enn 15 min (less than 15 min)
- 15-25 min
- 25-35 min
- 35-45 min
- 45-55 min
- over enn time (over than one hour)

Appendix V: into-out Mobility [2]

		Sandnes	Stavanger	Ha	Klepp	Time	Gjesdal	Sola	Randaberg	For-sand	Strand
persons residing in	2000	27501	54650	7421	7397	7193	4661	9765	4624	520	4873
	2005	30199	58416	7930	7777	7998	4990	10170	4666	539	5192
	2007	33837	65283	8628	8818	8787	5536	11631	5145	608	5826
	2008	35020	66932	9003	9138	9031	5749	12134	5312	603	5893
	2009	34955	66610	9104	9255	8961	5779	12267	5334	601	5853
	2010	35564	67750	9343	9599	9173	5927	12609	5300	612	5974
	2011	36857	69 789	9661	9852	9354	6144	13081	5438	629	5989
People who commute into	2000	11999	24832	1019	2318	2472	698	8716	1577	120	302
	2005	13531	25702	1588	2595	3171	848	10168	1798	161	335
	2007	15713	31961	1890	3017	3503	835	11939	2090	160	386
	2008	17087	32220	1894	3271	3801	1101	12350	2132	161	404
	2009	17058	31545	1900	3504	3565	1009	12676	2232	172	449
	2010	17714	31935	1926	3661	3561	1110	13430	2134	176	464
	2011	19218	32645	2031	4045	3655	1177	15122	2228	182	490
People who commute out of the	2000	13702	15671	2735	4337	3895	2740	5908	3186	172	1918
	2005	15559	17241	3111	4724	4461	3024	6307	3315	193	2005
	2007	17710	19255	3441	5554	5024	3463	7370	3639	241	2195
	2008	18210	20544	3672	5783	5212	3571	7542	3746	243	2221
	2009	17908	20423	3759	5828	5208	3597	7540	3691	270	2105
	2010	18317	21030	3897	6135	5449	3675	7743	3674	278	2135
	2011	19060	21635	4172	6307	5695	3824	8063	3815	283	2203
Employment by place of work	2000	25798	63811	5705	5378	5770	2619	12573	3015	468	3257
	2005	28171	66877	6407	5648	6708	2814	14031	3149	507	3522
	2007	31840	77 989	7077	6281	7266	2908	16200	3596	527	4017
	2008	33897	78 608	7225	6626	7620	3279	16942	3698	521	4076
	2009	34105	77 732	7245	6931	7318	3191	17403	3875	503	4197
	2010	34961	78655	7372	7125	7285	3362	18296	3760	510	4303
	2011	37015	80799	7520	7590	7314	3497	20140	3851	528	4276
People who commute into	2000	47	39	18	43	43	27	69	52	26	9

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	2005	48	38	25	46	47	30	72	57	32	10
	2007	49	41	27	48	48	29	74	58	30	10
	2008	50	41	26	49	50	34	73	58	31	10
	2009	50	41	26	51	49	32	73	58	34	11
	2010	51	41	26	51	49	33	73	57	35	11
	2011	52	40	27	53	50	34	75	58	34	11
People who commute out of the	2000	50	29	37	59	54	59	61	69	33	39
	2005	52	30	39	61	56	61	62	71	36	39
	2007	52	29	40	63	57	63	63	71	40	38
	2008	52	31	41	63	58	62	62	71	40	38
	2009	51	31	41	63	58	62	61	69	45	36
	2010	52	31	42	64	59	62	61	69	45	36
	2011	52	31	43	64	61	62	62	70	45	37

		Hjelmeland	Findøy	Rennesøy	Kvitsisland	Oslo	Bergen	Trondhiem
persons residing in	2000	1429	1441	1685	257	271 205	116305	76007
	2005	1441	1406	1793	253	278959	121170	80560
	2007	1536	1476	2079	276	307456	131 776	88 670
	2008	1516	1572	2191	267	316 389	135134	90 938
	2009	1525	1610	2212	256	314 847	135 737	90 332
	2010	1534	1668	2284	254	319883	136 623	91104
	2011	1506	1674	2410	260	330068	139 687	93 368
People who commute into	2000	188	110	174	87	173 801	28963	20698
	2005	299	152	181	128	156 138	31502	24444
	2007	332	217	175	140	163496	35988	26254
	2008	311	207	181	149	163084	36326	26566
	2009	271	234	217	166	159948	34882	25690
	2010	375	246	245	172	160396	35000	26179
	2011	307	255	295	184	163145	35991	26778
People who commute out of the	2000	270	310	786	98	34691	13540	8732
	2005	286	348	915	117	43544	13790	8937
	2007	344	394	1218	132	49349	15512	10402
	2008	366	408	1335	126	51571	15792	10860
	2009	364	408	1344	119	51551	15656	10813
	2010	329	440	1427	122	54155	16244	11164

	2011	346	467	1510	125	57261	16898	11491
Employment by place of work	2000	1347	1241	1073	246	410 315	131728	87973
	2005	1454	1210	1059	264	391553	138882	96067
	2007	1524	1299	1036	284	421 603	152252	104522
	2008	1461	1371	1037	290	427902	155668	106644
	2009	1432	1436	1085	303	423 244	154 963	105209
	2010	1580	1474	1102	304	426 124	155 379	106119
	2011	1467	1462	1195	319	435952	158 780	108655
People who commute into	2000	14	9	16	35	42	22	24
	2005	21	13	17	48	40	23	25
	2007	22	17	17	49	39	24	25
	2008	21	15	17	51	38	23	25
	2009	19	16	20	55	38	23	24
	2010	24	17	22	57	38	23	25
	2011	21	17	25	58	37	23	25
People who commute out of the	2000	19	22	47	38	13	12	11
	2005	20	25	51	46	16	11	11
	2007	22	27	59	48	16	12	12
	2008	24	26	61	47	16	12	12
	2009	24	25	61	46	16	12	12
	2010	21	26	62	48	17	12	12
	2011	23	28	63	48	17	12	12

Appendix VI: Bus Priority Scheme Physical Measures

What are the types of bus priority? There are two main typical pictures of bus priority scheme in traffic: The linear traffic and the cross traffic.
The linear traffic priority is the physical implementation of measures in the street lanes if the public transport drives the same street/lanes or if it has its own lanes which could be even segregated from the other travel modes. The bus lanes could be in the same traffic direction or separated from the traffic direction in the middle or by one side. There are four types of priority measure:

1. Measures that divide the traffic lane from other traffic lanes
2. Measures that prevent entry into the traffic lane
3. Measures that dissuade entry into the traffic lane
4. Measures that control the use of the lane by other traffic

Those four main measures of priority generate different 13 common solutions of linear traffic priorities. Those different priorities are based on different alternatives of accessibility of the travel modes in the streets/lanes. Mixing pedestrian, bicyclist, taxi, service automobile, emergency automobile, private cars and Buses will give different results on the street and traffic structures. The different linear priorities would rose if we take into consideration implementing LRT. It is common to see the LRT runs in the same lanes but it is also common to be separated from all the traffic modes, even the buses.
Providing the linear priority measures there are different methods like:

- Solid barriers between traffic lanes
- Non continuous barrier between traffic lanes
- Change of height between traffic lanes
- Lane markings
- Surfaces that cannot be used by other traffic
- Surfaces that discourage use by other traffic
- Bus gate
- Bus ramp
- Signage
- Providing lay-bys for delivery vehicles and off street parking
- "Head start" traffic signaling and lane arrangements
- Vehicle recognition

- Vehicle charging

Barriers could be categorized in different way: solid and soft, continuous and non-continuous and visual barriers and non-visual barriers. Solid barriers between traffic lanes could take many shapes and methods like: High concrete barriers, kerbs, crash barriers, fences and hedges. Those different solid barriers between traffic lanes could be replaced with different soft barriers like colors, signs on the lane and others. But the solid barriers hit two goals in the same time: preventing other transports to drive in the lane in a high rate and still allows pedestrians to cross with good accessibility. This does not mean that there is no disadvantage as: safety risk to other traffic modes, pedestrian, visual intrusion and high cost of implementation and removing.

The soft barriers are for examples marking streets, colors, signs and different pavements. The marking could have a volume with height of 15-25 mm. Signage are one of the soft barriers which is a marking and soft but it give a sound when the tires hit it. The soft barriers have advantages like: no visual barriers, low costs, ability for change and develop in the future. Disadvantages are like: cars stops in the bus lanes or stops for loading and unloading and other transport modes could merge to the lane before junctions in the peak hours.

The barriers are not only categorized as solid and soft, but there is continuous and non-continuous. The fences, kerbs, decorative bollards, studs are solid and continuous, while barriers like: bollards, studs and cones. Those two types are solid but they are different in the continuously of appearance among the separation of lanes in the street. Solid barriers have other appearances without additional objects. UK and Germany has stated the change of lanes height is one of the barriers. Heights of the lanes are common to be between 80-125 mm. those special lanes accuse damage to the other transport modes when they hit it. This decrease the safety of the use but it prevents other modes to cross, or drive by the lanes. Surface of the lanes is also one of the soft barriers. Grass surfaces in the case of LRT/Tram would be unfriendly for the other transport modes. City of Croydon uses unfriendly surfaces of pavement which could neither be considered as soft nor solid. The pavement organized by the width of buses and trams and limiting other transport modes in other sizes from access because of different extruded boxes in a grid among intersections, junctions, and entrances.

The measures of implementation in the street have different faces as well. There are many solutions on where to implement it. There are two main lane positions in segregation: Single and double tracks to be implemented in side with flow, side contra flow, middle, one side, center and one track each side. There is a comparing between those different alternatives has been done by Public transport- Mode options and technical solutions, 2005 as it follow:

Table 5.0.4: single track

Track	Single		
Location	Side with flow	Side contra flow	Middle
Width required	Least	least	Highest
Access of passengers			Worst
Access for other road traffic to roadside	Poor	Poor	Best
Pavement safety			Best
Cyclist in traffic lane		Potentially dangerous	Safest
Traffic use of opposing lane to overtake	Not relevant if only two lanes	Not relevant if only two lanes	Not relevant if only two lanes
Parking at roadside	One side only if space available	One side only if space available	Best
Speed of public transport			Best

Table 5.0.5: double tracks

Track	Double		
Location	One side	Center	One track each side
Width required	Least		Highest
Access of passengers			Best
Access for other road traffic to roadside	Poor	Best	Worst
Pavement safety		Best	
Cyclist in traffic lane		Safest	
Traffic use of opposing lane to overtake	Possible	Impossible if only one lane available per side	Possible
Parking at roadside	One side	Best	None
Speed of public transport		Best	

Traffic signaling is a technique used by junctions in order to give the prime position for public transport. The signaling could be used in the mixed lanes so it gives an advance position for public transport. Hi-trans described the meeting of traffic lights and bus lanes as: "Traffic lights with special signals for public transport should be used on street track in order to give priority. It is not possible to use the same signals if priority is required because this would cause confusion and introduce serious hazards. Public transport vehicles need to be equipped in such a way that they notify their approach to traffic lights sufficiently early to avoid the vehicle having to stop at traffic lights. This can be achieved by means of an induction loop set into the roadway that picks up a signal from the vehicle."[3]

[3] Hi-trans, the 4th part p 54