MOBILITY SURVEY REPORT FOR THE EUROPEAN INVESTMENT BANK

ACROSS project (National Research Fund of Luxembourg - FNR)

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THE ACROSS PROJECT

The **ACROSS** project (Assessing the Socio-Cultural Effects on Mobility Behaviours in Cross-Border Areas) is a research project funded by the National Research Fund of Luxembourg (FNR) under the CORE programme of FNR, a competitive funding with international peer-review of submitted projects. The project aims to investigate the influence of geographical location, sociological position and personal attitudes on individual's mobility behaviour. Based on our literature review, a population with socio-cultural differences, high-skilled (to maximize mobility abilities and minimize economic constraints on behaviours) and sharing the same working area (to "control" geographical variability) is very convenient to meet our study purpose. As the EU officials and temporary agents working in Brussels, Luxembourg and Strasbourg seem to meet all these criteria, we hence contacted related Institutions.

The composition of the research teams contains: CEPS/INSTEAD (Luxembourg), LIVE (Université de Strasbourg, CNRS, France) and METICES (Université Libre de Bruxelles, Belgium), for which all these public research institutes are specialized in social science and / or urban studies. This survey report aims to provide a descriptive statistics of the respondents, focusing on the socio-demographic characteristics, mobility practices, frequency of activity participations and representation of the city of Luxembourg.

Data collection and survey method

The main objective of the survey is to gather individuals' mobility practices and individual attitudes of the city. Hence, the questionnaire focuses on these questions with respect to individual's attitude and related mobility practices. The survey was conducted on a volunteer and confidential basis for the employees of the European Investment Bank (EIB) for which the protocol of web survey was designed. The survey was done in October 2012 with the agreement of EIB. We have collected 131 valid questionnaires. Due to the lack of information about total employees of EIB, this current analysis is based on these 131 non-weighted validated questionnaires.

2 Description of the respondents of EIB

The socio-demographic characteristics of the respondents are presented in Table 1. 55% of respondents are females. For age class distribution, 44% and 28% of respondents are in 35-44 and 45-55 years old age classes, respectively. It shows that most respondents are of age between 35-55 years old. For household size, 46% of respondents live in at least 4 person household. There are 26% of respondents who live in a two person household. Regarding the number of children less than 15 years old in the household, 41% has no children, 21% and 30% have one and two children, respectively. Similarly for the number of teenagers in the household, 77% has no teenagers in the household, 12% has one teenager in the household. Concerning marital status, 82% of the respondents live in couple.

TABLE 1. Socio-demographic characteristics of the respondents of EIB

Variables		N	%	Mean
Gender	male	55	42.0	
	female	72	55.0	
	non-response	*4*	*3.0*	
Age class	<25	1	0.8	41.2
	25-34	22	16.8	
	35-44	57	43.5	
	45-54	36	27.5	
	>=55	5	3.8	
	non-response	*10*	*7.6*	
Household size	1	13	9.9	3.2
	2	34	26.0	
	3	23	17.6	
	4	40	30.5	
	>=5	20	15.3	
	non-response	*1*	*0.8*	
Number of children (under 15 years old)	0	53	40.5	1.1
	1	28	21.4	
	2	39	29.8	
	3	9	6.9	
	4	1	0.8	
	non-response	*1*	*0.0*	
Number of teenagers (>=15 years old)	0	101	77.1	0.3
	1	16	12.2	
	2	4	3.1	
	3	4	3.1	
	4	1	0.8	
	non-response	*5*	*3.8*	
Marital status	couple	108	82.4	
	single	23	17.6	

The average work trip travel time is 35.2 minutes with a standard deviation of 19.8 minutes. The average travel time is 5 minutes higher compared with the surveyed employees of Court of Justice of the European Union. Concerning the mode choice of work trip, it is shown that car and public transport are the two main modes, representing around 61% and 34%, respectively (*cf. Table 2*). Walk and bike reach only about 5%.

TABLE 2.   Transport mode for work trip

Mode	N	%
On foot	3	2.3
Bike	3	2.3
Car	80	61.1
Public transport	45	34.4
Total	**131**	**100.0**

As for the use of parking facilities, Table 3 shows that almost all respondents don't use Park-and-ride facilities to work (98.5%). 86% respondents have free parking facilities near or at workplace, which explains why aforementioned high proportion of car use was observed (*cf. Table 4*).

Table 3.   Use Park-and-ride facilities for work

Use Park-and-ride facilities for work	N	%
Yes	2	1.5
No	129	98.5
Total	**131**	**100.0**

TABLE 4. Parking facilities near or at workplace

Parking facilities near or at workplace	N	%
Free	112	85.5
Paying	2	1.5
Not available	17	13.0
Total	**131**	**100.0**

Concerning the temporal aspect of travel behaviour, 90% respondents have flexible work time. The distributions of arrival and departure times at workplace are presented in Figure 1 and 2, respectively. It is shown that 41% of respondents arrive between 8:00 and 8:30 and 37% between 8:30 and 9:00. For departure time from workplace, a wide range of departure panels were observed between17:00 and 19:00, with 26% in 17:00-17:30 and 15% in 18:30-19:00.

TABLE 5. Flexible work time

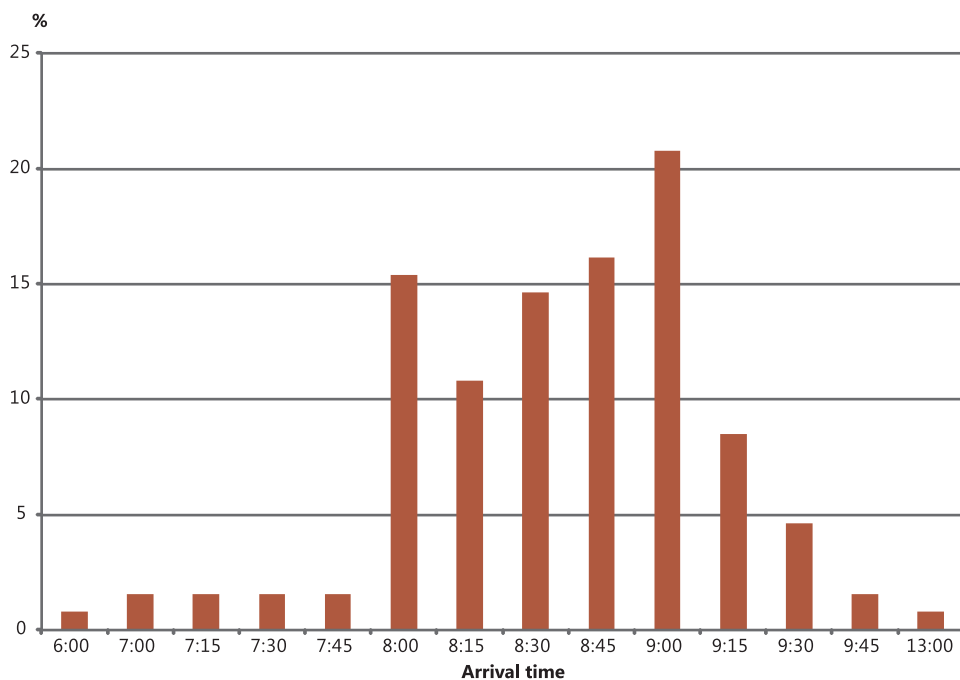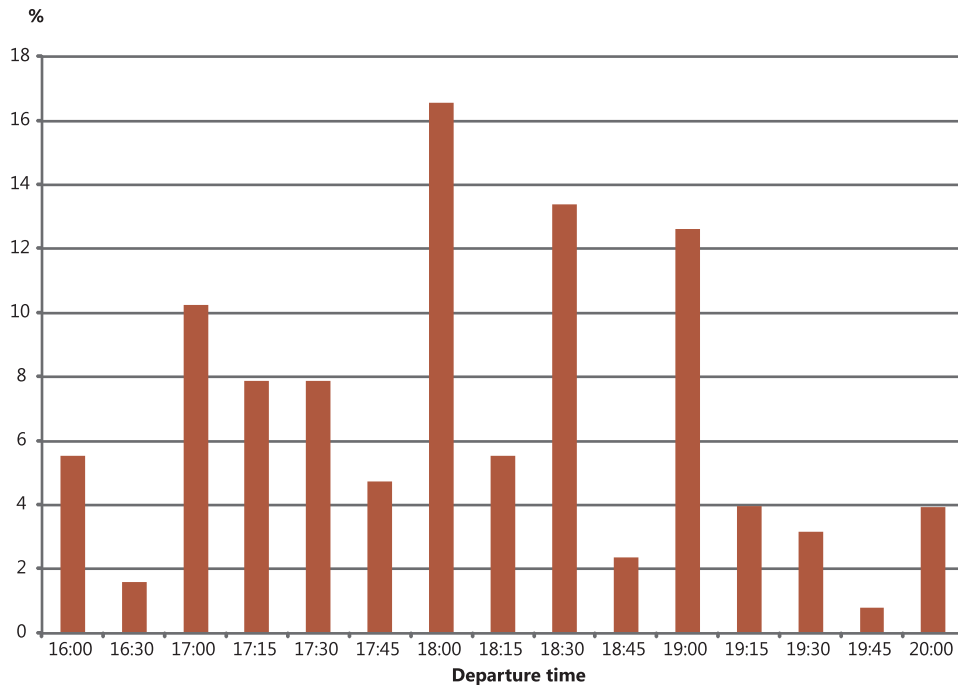| Flexible work time	N	%
Yes	118	90.1
No	13	9.9
Total	**131**	**100.0**

FIGURE 1. Arrival time at workspace

FIGURE 2.   Departure time from workplace

As for the number of cars in the household, Table 6 shows that most respondents have at least two cars (64%), which is relatively high compared with the population. Only 5% of respondents have no car in the household. The subscription rate of season ticket of public transport is relatively low (35%) (*cf. Table 7*).

When regarding the attitude of the respondents for the economic / energetic / environmental characteristics of car and public transport, it is shown that most respondents consider car is rapid, expensive and convenient, but polluted (82%) transport mode. Only 29% and 22% of respondents consider car is a dangerous transport mode, respectively.

For public transport, most respondents consider them as an ecological, convenient, safe and punctual mode. For train, 40% of respondents consider it as an expensive transport mode, which is much higher than bus (10%). This could be explained by cross-border workers in the Institution.

TABLE 6.   Number of cars in the household

Numbers of cars in the household	N	%
0	7	5.3
1	40	30.5
2	77	58.8
3	4	3.1
more than 3	2	1.6
non-response	*1*	*0.8*
Total	**131**	**100.0**

TABLE 7.   Subscription of season ticket of public transport

Subscription of season ticket of public transport	N	%
Yes	46	35.1
No	85	64.9
Total	**131**	**100.0**

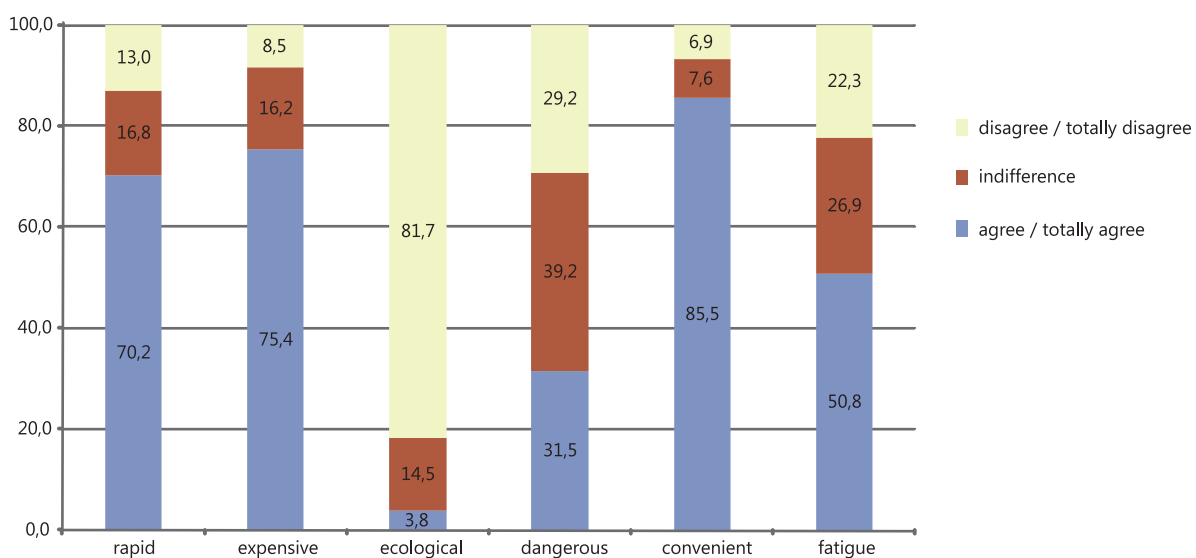**FIGURE 3.**   Attitude towards car
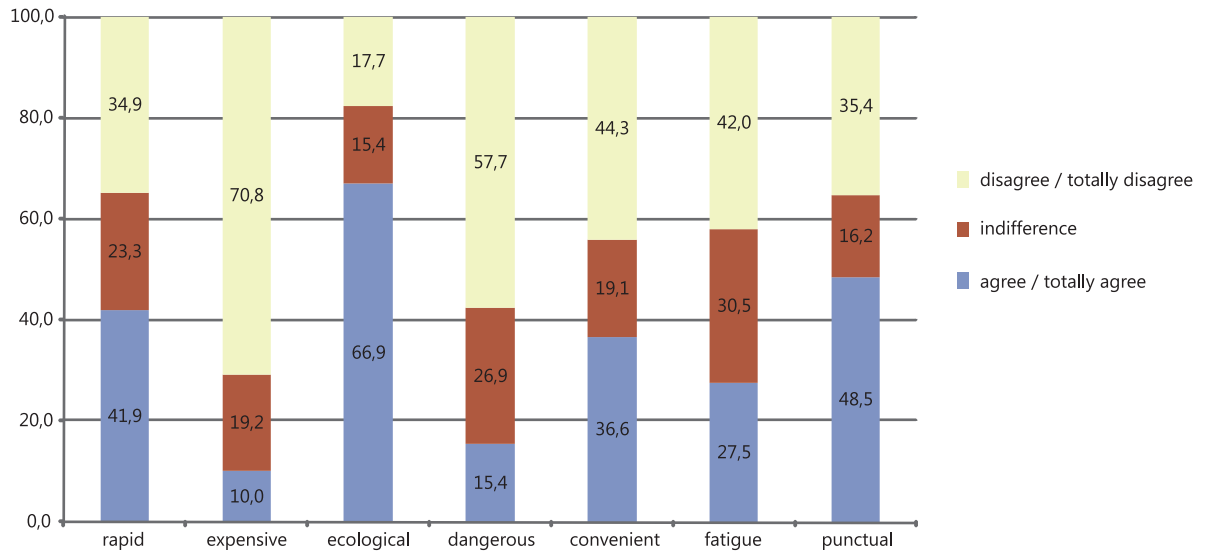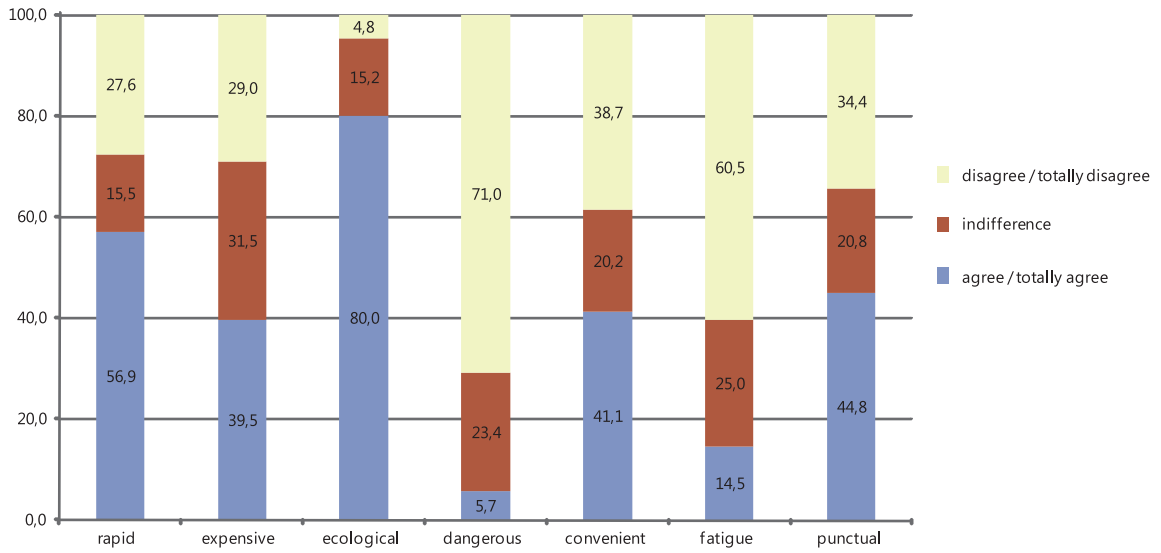
FIGURE 4. Attitude towards bus

FIGURE 5. Attitude towards train

The distribution of trip purposes is presented in Table 8. The respondents are asked to report their realized activities at least once in one month. We found 'Visiting friends' (82%), 'Go to restaurant' (81%), 'Sport' (73%), 'Shopping' (67%) and 'Accompanying children for activities' (47%) are the five main reported activity purposes. We can find 'Associative activities' (3%), 'Accompanying children to school' (13.7%) and 'Visiting family' (11%) apparently less conducted by the respondents. Note that among the activities in the list, the respondents were asked to report only five activities by giving additional information about its destination, mode choice and accompanying persons.

TABLE 8.   List of activities realized at least once in a month

Activities type	N	%
Shopping	**88**	**67.2**
Associative activities	4	3.1
Sport	**96**	**73.3**
Visiting friends	**107**	**81.7**
Visiting family	14	10.7
Accompanying children for school	18	13.7
Accompanying children for activities	**62**	**47.3**
Restaurant	**106**	**80.9**
Bar	5	3.8
Cinema	10	7.6
Museum	4	3.1
Personal business	24	18.3

The purpose of individual attitude survey is to see what the most important sites of the city of Luxembourg are and the relationship with individual's cognitive attitudes. The respondents were asked to cite five most important sites of Luxembourg for them and their attitudes toward these sites in terms of physical characteristics, visiting frequency, social reason and positive / negative emotions for the site. We first look at the 1st ranked site. Kirchberg (34%), railway station (10%) and Place d'Armes (8%) are three most important sites of Luxembourg for the respondents. It follows EIB (5%) and Hamilius (5%). Other reported sites are listed in Table 9 for which we can see that working places, cultural / social-recreational activity places clearly are most important places of the city for the respondents.

TABLE 9.   Most important (ranked 1st) places for Luxembourg

Rank	Place	N	%
1	Kirchberg	45	34.4
2	Railway station	13	9.9
3	Place d'Armes	11	8.4
4	EIB	6	4.6
5	Hamilius	6	4.6
6	Bonnevoie	4	3.1
7	City center	4	3.1
8	Limpertsberg	4	3.1
9	Aldringen center (Building)	3	2.3
10	Grand-Rue	3	2.3
11	Others	32	24.4
	Total	**131**	**100.0**

6   Outlook

In this preliminary analysis, we reveal travel behaviour, activity participation and individual attitude of the city of Luxembourg of the employees of EIB. Although it shows that the employees have good impression of public transport (ecological, rapid and punctual), car is still the dominant mode. It suggests that we need more efforts (communication) to change the mode choice behaviour towards a more ecological modal shift in the future. Moreover, parking availability seems to be a major determinant for employees' mode choice.
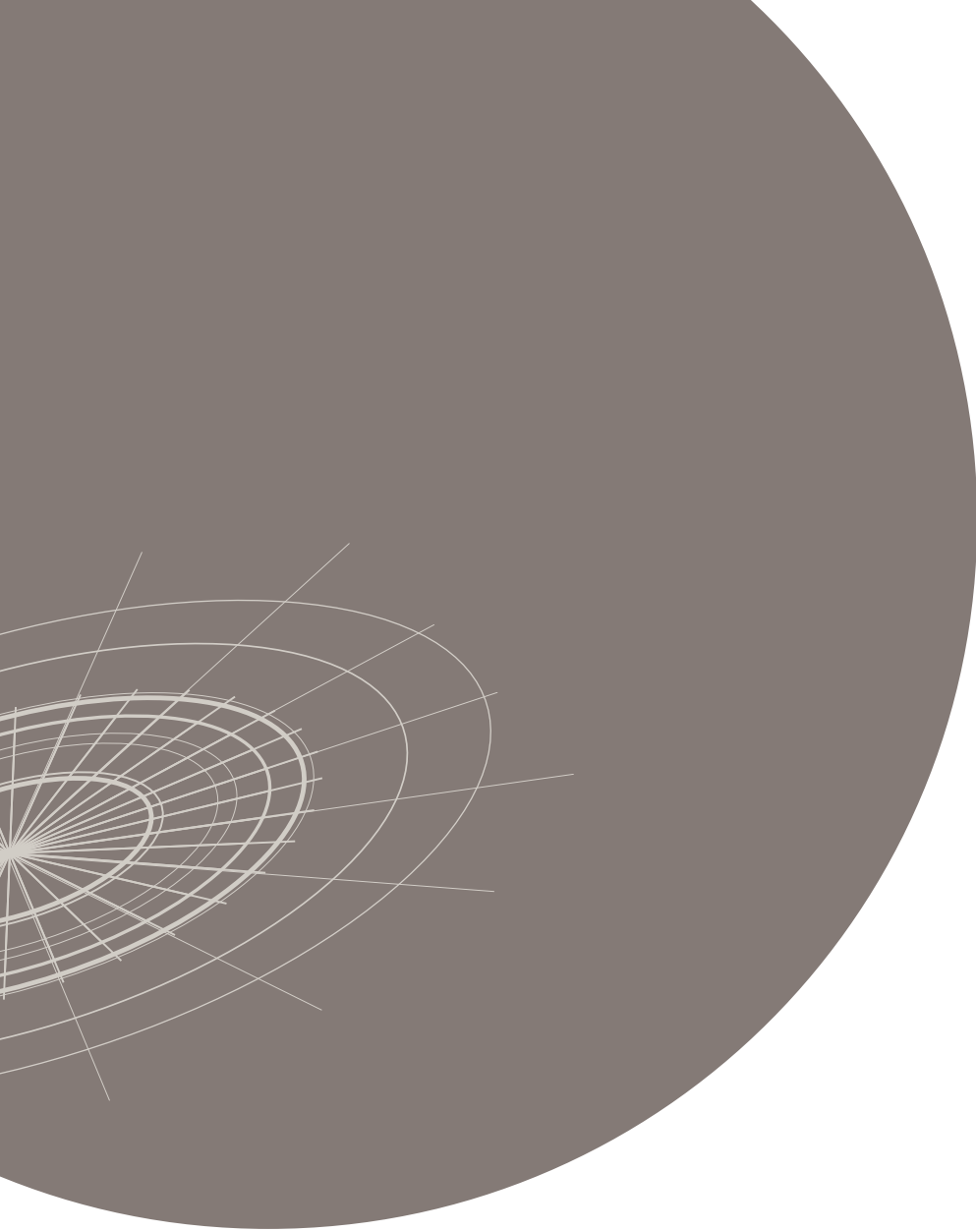
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