

Gender Mobility: differences in mobility patterns

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GENDER MOBILITY: DIFFERENCES IN MOBILITY PATTERNS

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ABSTRACT

According to many studies, gender differences in travel patterns are mainly accounted for by the division of roles in the labour market and in the family, besides age and location. Gender mobility patterns have been changing in recent years, reflecting the evolution of gender differences in socio-economic and demographic conditions (e.g. new household and parental models, new family social models, developments in the labour market and increased labour market participation, population ageing). The objective of the paper is to identify gender mobility demand models as functions of various factors such as location (urban vs rural area); ageing, labour, market conditions.

Keywords: gender mobility, travel demand, urban mobility plan

0. INTRODUCTION

The paper is based on literature review of the current gender mobility. Demand analysis provides a framework for the survey data and highlight the underway trends also related to structural and demographic changes; data set of national travel surveys (UK, Germany, French, Spain and Italy) can be used for investigating gender differences in mobility patterns: modal split, purposes of journeys, gender attitudes. Data shows that women's travel patterns differ from men's in many ways: they are likely to travel shorter distances than men, are more likely to use public transportation, engage in more no-work travel outside rush hours and make more multi-stop journeys, etc. The paper also discusses occurred and foreseeable changes of mobility patterns in relation to the transformation in household's life-cycle and demographic conditions (e.g. women live longer than men and represent the major components of the population in age). Finally, the paper argues that internalising the gender approach in the Sustainable Urban Mobility Plan would bring about benefits.

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1. EVOLUTION OF HOUSEHOLDS, LABOR MARKET AND DEMOGRAPHIC TRENDS

According to many studies, gender differences in travel patterns are mainly accounted for by the division of roles in the labour market and in the family, besides age and location.

Gender mobility patterns have been changing in recent years, reflecting the evolution of gender differences in socio-economic and demographic conditions. In the two following sections we investigate how the available literature addresses the effects on the mobility patterns of:

- new developments in the labour market with the spread of new forms of work and increased labour market participation;
- demographic trends, as women live longer than men and represent the major components of the ageing population.

1.1 Labour market trends

Gender has an influence on commuting patterns, but it is difficult to assess how this influence is changing with women's increasing participation in the workforce. The following aspects have to be taken into account when considering the relation between women's positions in the labour market and commuting patterns:

- Women are more likely to be employed in part-time jobs.
- Women are more concentrated in low-wage professions than men.
- Women and men concentrate in different occupations, i.e. women are more employed in care-giving professions and in services.

Women still show lower participation and employment rates than men, even if a narrowing of the gender gap has occurred in most countries over recent decades. This explains the gender gap in commuting distances and times, with men historically commuting farther and longer than women, as documented in the literature (Crane, 2007).

Table 1 analyses in more depth the information related to EU 27, EU 17 and the five countries analysed in depth.

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Table 1 - Employment rates by sex and gender gap, 2010⁽¹⁾ (%).

	Total	Men	Women	Gender Gap ⁽²⁾
EU-27	64.2	70.1	58.2	11.9
EA-17	64.2	70.4	57.9	12.5
DE	71.1	76.0	66.1	9.9
ES	58.6	64.7	52.3	12.4
FR	64.0	68.3	59.9	8.4
IT	56.9	67.7	46.1	21.6
UK	69.5	74.5	64.6	9.9

Source: Eurostat (2011)

(1) Data refer to persons aged 15-64.

(2) The gender gap is calculated as the difference between the male and female employment rates; a positive/negative gap indicates a higher/lower share of men in employment compared with women.

The most popular explanation of gender differences in participation and employment rates is that women traditionally have a greater share of home- and care-centred responsibilities. Across the EU-25, the division of responsibilities in the home is highly gendered, with women spending much more time in unpaid housework and care work for children and adult dependants.

According to Eurostat data¹, in the EU-27, 31.9% of employed women were working part-time in 2010 compared to only 8.7% of men. Among full-time workers in the EU-27, 23% of the men have some supervisory responsibilities, compared with only 15% of the women (European Foundation for the Improvement of Living and Working Condition, 2007)². These explanations based on in-home and out-of-home working patterns are subject to change with changing household and working patterns— although the different ways these patterns vary by place and personal characteristics also matters.

Women's increased educational levels are likely to incentivise their participation in the workforce (see Figure 1) and their increased orientation to full-time careers is expected to reduce the gender gap in commuting and mobility patterns. The increase in women's labour participation will also derive from the growth in single-parent families, with women usually as the head of the family, and by the rise in women's (and men's) retirement age and the shift to contribution-based pension schemes.

¹ <http://epp.eurostat.ec.europa.eu/portal/page/portal/eurostat/home/>.

² Available at <http://www.eurofound.europa.eu/surveys/eqls/2007/index.htm>.

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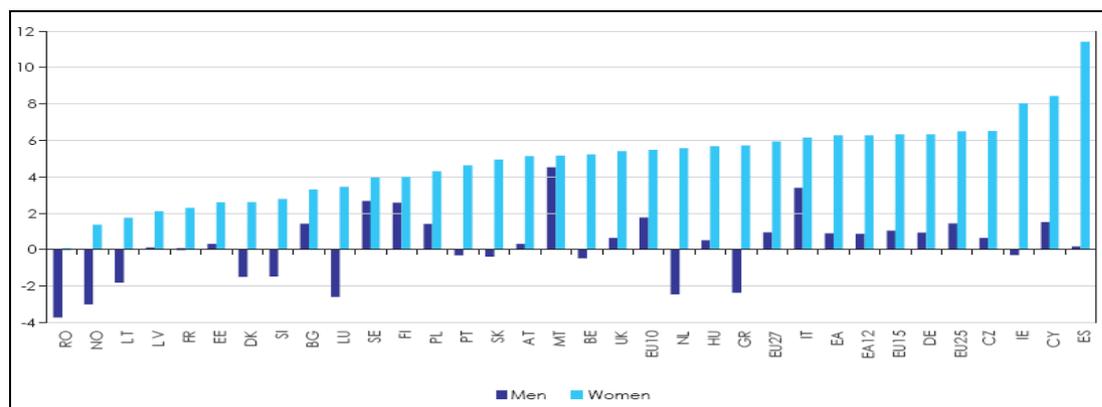


Figure 1 – Labour Market Participation rates by gender, projected change over the period 2007-2060 (in percentage - age group 15 to 64)

Source: European Commission (2010), p. 53.

1.2 Demographic trends

In the European countries population ageing is particularly relevant, with important implications for mobility patterns. The main trends are:

- the rate of EU population growth is the lowest among the major regions in the world. As can be seen from figure 2, the demographic structure of population, already unbalanced in 2010, will be completely redrawn by 2060, especially for women;
- with only a few exceptions, net migration is the only force driving population increases, while natural change is close to zero or even negative (all EU Member States now have total fertility rate levels below 2.1, the level needed for the replacement of generations). International migration has gained importance, becoming the major force of population growth as from the early 1990s. In recent years more than three quarters of the total population increase has been due to net inward migration (European Commission, 2007), significant exceptions being some Eastern European countries where net migration is negative (e.g. Poland, Slovakia, Latvia and Lithuania);
- low fertility levels and extended longevity are the causes of the ageing of the EU population, which will become dramatic when the baby boomers reach retirement age in the next few years. Demographic ageing is especially evident in the predominantly rural regions of some Member States, notably Portugal, Spain, Greece, Italy, Germany and France, where the proportion of people over 65 is particularly high. Moreover in Germany, the Nordic and Baltic countries and in Southern Europe, the substantial rural-urban migration of females in the economically active age groups result in a high degree of “masculinisation” of the rural population;

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- population trends and distribution vary greatly among the EU regions, with the Nordic countries and cities in Southern Europe showing urban growth, whilst the central and eastern European conurbations generally show a declining population (European Commission, 2007). The Western European countries have both growing and shrinking cities.

These trends have important repercussion on gender differences given that women account for the majority of elderly people. The higher life expectancy at birth for girls relative to boys³ in all European countries also implies that an increasing number of old women will be living alone, with great mobility problems and difficulties in accessing services.

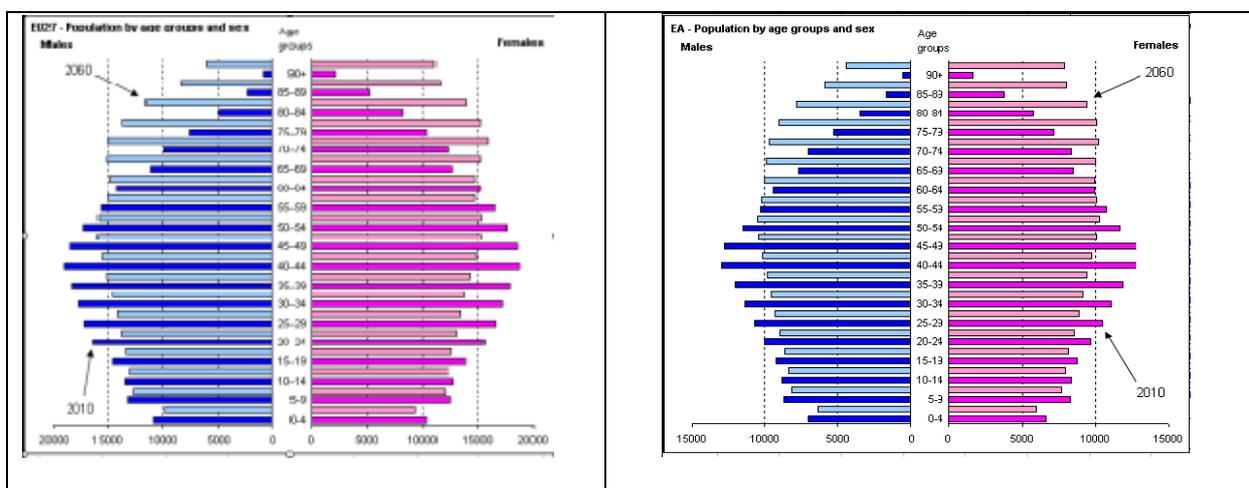


Figure 2 – European Commission (2012), Demographic structure of population in 2010 and 2060 – EU 27

2. CHARACTERISTICS OF WOMEN'S TRAVEL PATTERNS

Following Hanson (2010), we use the term mobility “to signify the movement of people from one place to another in the course of everyday life”.

Studies on gender differences in travel activity patterns employ two types of data:

- National and local data which includes mobility information only on the journey to work or for study;
- Travel activity diaries, recording out-of-home movement for all purposes, usually over one or two days for a sample of people living in a metropolitan area. The UK National Travel Survey and the Multi-country Harmonized Time Use Survey combine

³ The gender gap has been narrowing in recent years, its breadth differing across countries. The decrease in the gender gap is caused both by a slowing down in the increase in women's life expectancy and a greater increase in men's.

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quantitative and qualitative data to build up a rich detailed picture of practices and gaps in knowledge and understanding.

2.1 Household and parental models and women mobility

In conceptualizing gender and mobility, it is essential to consider the individual as embedded in household, neighbourhood, region and broader societal relations; all of these contextual elements matter in understanding how and why gender influences mobility (Hanson, 2010). Addressing the effects of these relations on the mobility patterns of women and men is particularly complex. Women's activities are generally more diversified than those of men, primarily because of their "double role". In fact, women are more involved in house-keeping and are more likely to be tasked in assisting dependents like children, the elderly, the disabled and people with health problems. This results in women often travelling off-peak hours with greater variety of destinations than men's.

Research on gender and transportation has primarily aimed at accounting for behavioural differences, based mainly on quantitative methods. An in-depth study on commuters carried out in the US (Crane, 2007) highlights the importance of new household and parental models in influencing gender differences in mobility. This study shows that the largest differences occur among men and women between the ages of 35 and 54. Considering household models, the smallest gender difference in commuting distances is found for single adults with children, while the largest gender gap concerns married-couple households with children and both parents working. The study also indicates that the gender gap has increased for single adults with no children and for married couples with no children, but decreased for single adults with children and married couples with children. Working women in households with children are now, for example, commuting farther than they used to, especially in comparison with the distances travelled by their spouses. Marriage is, however, associated with shorter commutes for women⁴.

Although men continue to commute farther and somewhat longer, women are catching up. In particular, the commutes of married women with children are lengthening at a rate three times faster than those of their working husbands. The gender gap is smallest for the current cohorts of younger women, and this is persistent as the cohort ages.

In considering travel purposes, it is important to consider that escorting practices impose an additional burden on the household, and especially on women with care responsibilities. They are time consuming and entail the need to engage in synchronising, planning and coordinating with household members, with other households, with the temporal and spatial

⁴ Children are not a statistically influencing factor on women's mobility patterns, according to this study. This is probably due to the presence of contrasting forces: on the one hand, having children may mean higher income needs for the household, resulting in women working farther away, while on the other hand, with children women's home-centred responsibilities are increased.

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patterns of public transport availability as well as those of other facilities and services, such as schools, shops and care services (see box below).

Box 1 - Escort journeys and their impact on the transport sector

Hogdson (2012) underlines that the complexities of escorting are largely ignored in traditional transport studies. *“Escorting in transport sector national surveys is recorded as a part of the documenting of journeys purpose but is generally understood to mean escorting children thought too young to travel alone to school. Escorted journeys are often conceptualized as the ‘school run’ and if done using a car, have been conceptualized in transport planning as a ‘problem behaviour’, one that generates congestion, reduce air quality, adds to children’s health problems and deleterious exercise patterns, and negatively impacts on a school’s immediate environment”*

Hillam, Adams and Whitelegg (1990), in their report based on a study focused on junior schoolchildren aged 7 to 11, and senior schoolchildren aged 11 to 15 in UK and in Germany suggest *“...that it is principally the increase in motorised travel that has been responsible for the decrease in children's independence. Paradoxically, for parents of young children, the benefits of wider car ownership have been substantially offset by the constraint imposed on their freedom owing to the increased need to escort their children because of the rise in traffic danger”*.

2.2 Gender differences in transport mode

Clear indication of gender differences in transport modes may be derived from the Eurobarometer (2007)⁵ survey, which provides gender-disaggregated data on modal split in the European Union (see Table 2).

Table 2 - Gender differences in Modal Split in the EU 27, (2007)

	Car	Public Transports	Walking	Bicycle	Motorcycle	Other
EU 27	51.4	20.6	14.7	8.7	1.8	2.7
Men	57.5	18.0	10.2	8.3	3.3	2.7
Women	45.8	23.1	18.8	9.1	0.5	2.7

Source: Eurobarometer “Attitudes on issues related to EU Transport Policy”, July 2007

According to these data, men travel more by car and motorcycle than women, while women walk and use public transports and bicycles more than men.

Similar gender differences emerge from disaggregated data for different Member States (see table 3). Considering the information more in depth and in a circumscribed area (regional survey) there is evidence that women travel in cars more as passengers than as drivers (see box origin-destination survey in Lombardia Region, 2002).

⁵ The survey covers all 27 member states and is conducted on a sample of 25,767 individuals. Moreover, the data are not disaggregated per country.

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Table 3 - Gender Modal Split (value %) in different countries

Transport	ITALY 2011		UK 2010		Germany 2008		FRANCE 2008	
Mode	Women	Men	Women	Men	Women	Men	Women	Men
Car	60,6	72,7	37,5	47,2	36,30	49,20	62,8	67
Car as passenger			26,7	17,4	18,80	11,30		
Public transport	16,5	12,7	10,30	9,80	8,80	8,20	8,5	8,1
Foot&Byke	22,9	14,6	23,60	23,20	36,10	31,30	28,1	21,7
Other			1,90	2,40			0,6	3,2
Total	100	100	100,00	1,00	100,00	100,00	100	100

Source: Isfort, 2011; UK National Travel Survey 2010; Bundesministerium fuer Verkehr, Bau und Stadtentwicklung, 2008; Ministère de l'Écologie, du Développement Durable et de l'Énergie, 2008

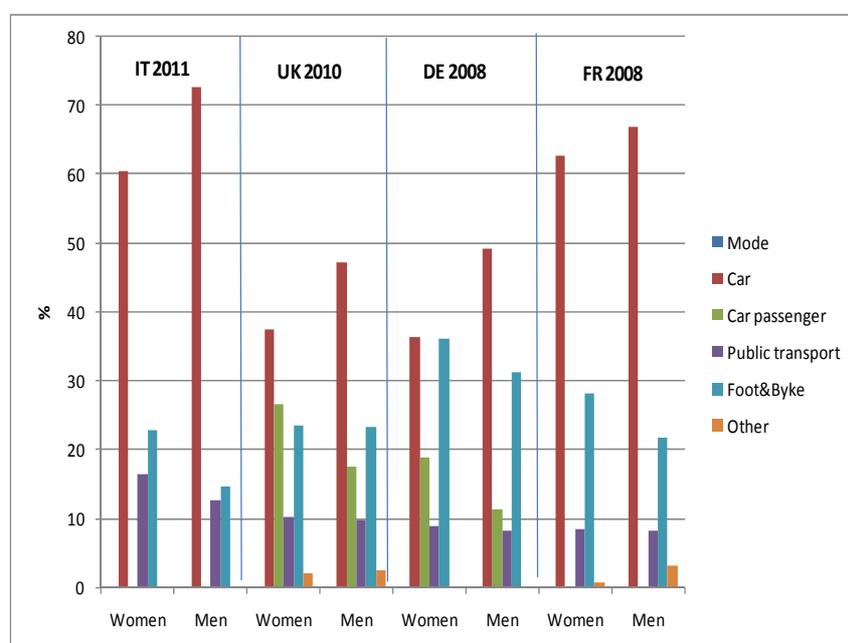


Figure 3 - Gender Modal split in different EU countries

Box 2 - Origin/destination survey in the Lombardy region (IT), 2002

The survey was carried out between February and May 2002 - involving about 580,000 telephone interviews with people living in the region and about 25,000 direct interviews with car drivers, public transport passengers, train passengers and flight passengers at the regional "cordon" (border). Even if the survey did not have the specific aim to investigate gender differences in mobility patterns, data on modal split and purposes of journeys stratified by gender are provided.

The following table presents the modal split by gender. It emerges that both women and men travel more by car than by other means of transport but men travel more as drivers than as passengers relative to women. Furthermore, men use cars and motorcycles more than women, while women tend to use public transport, bicycles and walk more than men.

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% Modal split by gender in Lombardy Region, 2002			
Modal split	Total (%)	Men (%)	Women (%)
Car as driver	62.9	68.5	56.6
Car as passenger	9.4	5.5	13.9
Public transport means	9.2	7.1	11.5
Motorcycle	3.8	6.0	1.4
Bicycles	7.2	6.7	7.8
Walking	5.9	3.8	8.2
Other	1.6	2.4	0.6
Total	100.0	100.0	100.0

Source: Regione Lombardia (2002), Survey Origine/Destinazione

2.3 Gender mobility and purpose

Since National statistics do not provide homogeneous information and report aggregated data on trip purposes of women and men, it should be necessary to deepen the question through adequate, gender-sensitive statistical data and research at local and national level. However these point out significant differences with respect to gender mobility patterns (see statistics in UK, Germany, Italy and Spain). Whereas information are reported in detail, further disaggregated data can be observed. In this respect clear evidences of gender differences emerge from UK national statistics which provide information that are further disaggregated per interviewees' age thus giving the possibility to remark the differences related to transport purposes as functions of individuals and families' life cycle.

Table 4 - UK, trip purpose by gender and ageing (%)

Trip Purpose	All		21 - 59		60-69		over 70	
	Men	Women	Men	Women	Men	Women	Men	Women
Commuting	24	15	33	21	16	5	2	1
Business	12	5	16	8	10	2	2	0
Education	3	3	1	1	0	0	0	0
Escort	8	11	6	11	7	6	7	4
Shopping	10	15	8	14	15	25	26	28
Visit	17	21	14	19	19	26	24	26
Personal business	8	9	7	8	10	11	14	14
Sport/entertainment	19	21	16	18	23	25	26	26
Total (%)	100							

Source: National Travel Survey 2010 –Department for Transport

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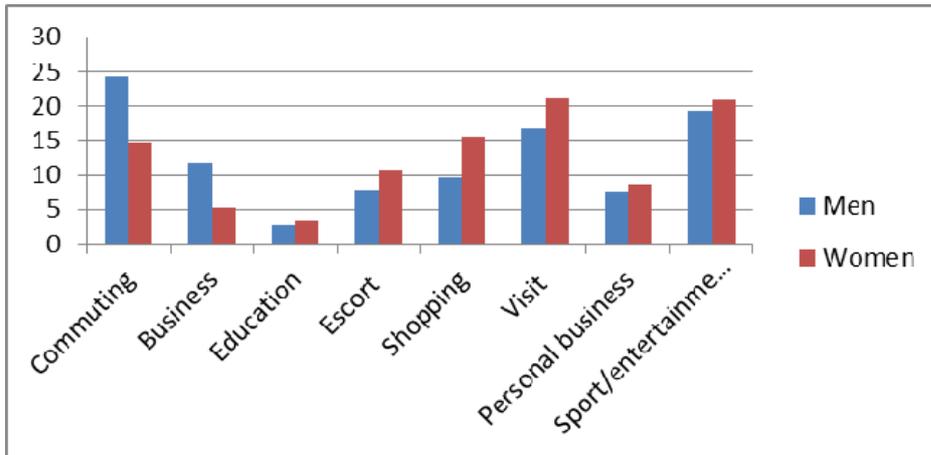


Figure 4 - UK, purpose by gender (all value%)

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Table 5 - Germany, trip purpose by gender (%)

Trip Purpose	Men	Women
Commuting	15	12
Business	10	3
Education	6	6
Shopping	18	23
Personal business	12	13
Sport/entertainment	32	33
Escort	7	10
Total	100	100

Source: Mobilitaet in Deutschland 2008
Bundesministerium fuer Verkehr,
Bau und Stadtentwicklung

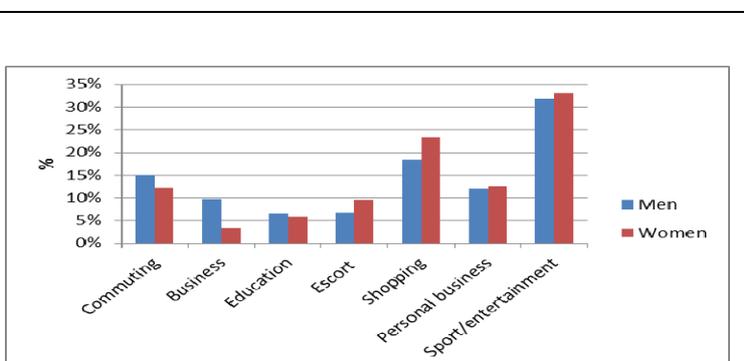


Figure 5 - Germany trip purpose by gender (%)

Table 6 - Spain, trip purpose by gender (%)

Trip Purpose	Men	Women
Commuting	37	21
Education	12	13
Shopping	8	17
Escort	6	12
Sport/entertainment	23	19
Visiting	6	9
Other	8	9
Total	100	100

Source: Encuesta de Movilidad de las
Personas Residentes en España
2006-2007, Dirección General de
Programación Económica del
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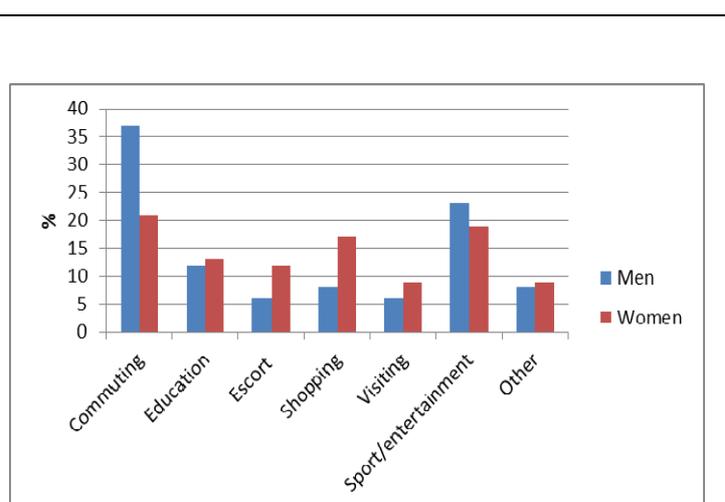
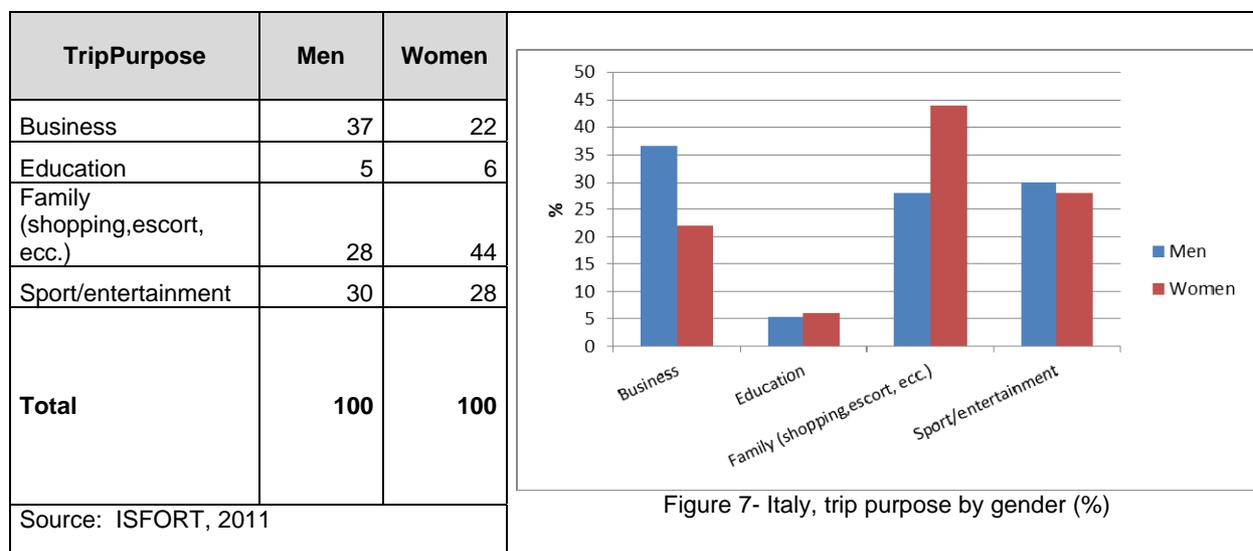


Figure 6 - Spain trip purpose by gender in Spain (%)

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Table 7 - Italy, trip purpose by gender (%)



Source: ISFORT, 2011

The statistics in the European countries considered underline that women tend to travel less for work (commuting and business) than men. Major differences emerge in those countries (i.e. Italy, Spain) where higher disparities between men and women in the level of labour market participation are registered (see table 1).

On the contrary the female population tends clearly to travel more for shopping, escort, family management and so on. Also this trend seems to be in line with the structural questions discussed above.

The gender differences regarding the trip purposes pointed out provide implications and effects in terms of mobility patterns. In particular travels which are less bound by work needs determine:

- Increase scattering in the origin and destination; trips often involving other destinations besides the workplace such as shopping centres, schools, hospitals and health centres, etc;
- Less temporally constrain, women frequently travel outside rush hours (see the differences in travel purposes in Table 4, 5, 6, 7) ;
- women often do not travel alone but have to accompany children or elder and/or disabled persons (see the different percentage of women and men travelling for escort in Table 4, 5, 6, 7)

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For these reasons, while men often present standard and linear travel patterns (to and from the workplace, without interruptions), women frequently have shorter travel patterns and more complex travel chain.

Box 3 - Origin/destination survey in the Lombardy region (IT), 2002

% Purpose of trips by gender in Lombardy Region, 2002

Purpose of trips	Total	Men	Women
Working- business	47.1	57.4	35.7
Study	9.2	8.8	9.7
Shopping	19.7	13.4	26.7
Visit and personal business	12.6	7.7	18
Tourism/Entertainment	11.4	12.7	9.9
Total	100	100	100

As for the purposes of journeys, both men and women travel more for work and business, but men far more often than women. Secondly, while both travel for shopping, women's journeys for this purpose by far exceed men's. Finally, women travel more than men for study and, above all, for visiting and personal business. By contrast, men travel more for tourism and entertainment.

Source: Regione Lombardia (2002), Survey Origine/Destinazione

2.4 Gender mobility and ageing

In relation to sustainability and mobility patterns, the older generations are generally less mobile, take up new consumption patterns at a slower speed and consume on average as much as or less than other groups in society in terms of resources. Over time the elderly are gradually taking up the same habits as the younger generations. As the younger cohorts, used to high mobility and travelling to other countries, get older and as the wealth and health conditions of the elderly population improve, the high mobility habits are maintained. Consequently an increasing daily mobility and frequent travelling activity can be seen for the wealthier and healthier segments of the elderly. This development is especially notable in the Northern and Western European countries. People over 60 are becoming an increasingly important customer group for travel agencies. Furthermore, an increasing number of the elderly acquire second homes and/or migrate to other countries, often Southern EU Member States. Indeed, the transport habits of the elderly resemble those of the overall population, with some important effects for future mobility patterns (Curtis & Perkins, 2006):

- while currently the average daily journeys decline after the age of 60, and particularly after 75, the increase in retirement age is likely to increase commuting for work also in old age (at least for those aged between 60 and 70);
- as for the rest of the population, the average daily distance travelled by the elderly is increasing over time due to the above-mentioned cohort effect;

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- a growing share of the elderly hold driving licenses and have access to cars, showing that habits acquired when young are - partly - sustained in higher ages and lead to gradually increasing daily transport. The same pattern is reflected in tourist travel;
- currently there is a significant difference in travelling habits across Europe, with high travel frequency in North-Western Europe and low frequency in Eastern and Southern Europe. Increasing wealth may change this over time, boosting the travel habits of the elderly also in Southern and Eastern Europe.

There are, however, some gender differences in old age mobility. Mobility for older women is more restricted than for older men. Rosebloom study of the results of the National Household Travel Survey (Rosebloom 2006) pointed out that older women travel less and for shorter distances than older men and often use alternatives to the car.

In relation to transport needs in old age, Buck (2005) found that the main concerns for older people are crime and accessibility. Particularly for women, the fear of violence and aggression means that they are less willing to travel after dark and to use public transport, preferring to use cars. Su and Bell (2012) suggest that more recently older women's travel patterns have been changing, reducing differences between older men and women. For example, according to the 2009 UK National Household Travel Survey (Department for Transport, 2010), the gap in car driving between older men and women of the same age is narrowing.

As for *gender differences in the mobility patterns of migrants*, there is very little literature. According to a recent study by Tsang and Rohr (2011), based on a review of 22 key studies carried out in the US, Australia, Canada, Norway and Sweden, as well as an empirical analysis of UK data, migrants' travel behaviour is closely associated with the use of non-car-driving modes (including public transport, walking, cycling and car-sharing); their transport patterns tend to become increasingly similar to those of natives with the length of stay; migrants tend to travel mainly for work. Migrant women's mobility patterns are likely to concentrate even more on walking, especially for those ethnic communities where traditional forms of gender roles prevail and women tend not to move out of their ethnic neighbourhood, and on public transportation for migrant women who travel for work.

3. GENDER APPROACH AND TRANSPORT POLICY MEASURES

The relationship between gender mobility patterns and transport planning develops upon two distinct levels. The cognitive level (information collection and processing), to highlight the gender aspects characterising mobility demand through an in-depth analysis of mobility determinants; discuss in the previous chapter. The planning level, to understand more clearly

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and comprehensively the mobility segments and therefore to promote more effective mobility measures.

3.1 Planning instrument and policy measures

A new approach promoted at EU level defines the guidelines to address the transport system in a more sustainable way, aiming to:

- Ensure transport accessibility to all;
- Improve safety and security;
- Reduce air and noise pollution, greenhouse gas emissions and energy consumption;
- Improve the efficiency and cost-effectiveness of the transportation of persons and goods;
- Contribute to enhancing the attractiveness and quality of the urban environment and urban design.

These guidelines could also promote more women-friendly transport planning, as does the Sustainable urban Mobility Plan presented in box below.

Box 4 - Sustainable Urban Mobility Plan: basic characteristics

- A participatory approach - involving citizens and stakeholders from the outset and throughout the of decision-making, implementation and evaluation processes, building local capacities for handling complex planning issues, and ensuring gender equity;
- Commitment to sustainability: balancing social equity, environmental quality and economic development;
- An approach with practices and policies integrated between policy sectors, between authority levels and between neighbouring authorities;
- Focus on measurable targets, derived from short term objectives, aligned with a vision for transport and embedded in an overall sustainable development strategy;
- Review of transport costs and benefits, taking into account wider societal costs and benefits, also across policy sectors;
- A method comprising: 1) status analysis and baseline scenario; 2) definition of a vision, objectives and targets; 3) selection of policies and measures; 4) assignment of responsibilities and resources; 5) monitoring and evaluation arrangements.

Source: Eltis Project, SUMP Guideline, www.mobilityplans.eu

From the literature analysis and the statistical evidences there emerges the necessity to define the planning measures on the basis of women mobility needs. In particular planning activity could be developed through the implementation of a set of actions which take into account women mobility needs in order to put into practice tailored measures such as:

transport infrastructures design

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In most countries, women walk and use public transportation more than men. Provision of pathways alongside roads and pavements in cities, as well as safe pedestrian crossings, is very important for both safety and comfort. Bus stops and pathways to bus stops must also take account of women's needs and in particular safety needs, the issue of lighting being especially important in this respect;

transport facilities

The design of transport facilities is very important. Women often have children or elder people/disabled with them. They are also often burdened with bags and packs. Access to buses and underground trains must be facilitated, by providing sufficiently wide doors and avoiding steps, besides appropriate seating facilities for the disabled, children and older people;

transport services and regulation

Whereas public transport services (public or private public transport, as well as taxis, etc.) are in most cases designed for travel towards the city centre during rush hours, women also need transport services in their local neighbourhood outside rush hours allowing them to make short, but linked journeys. Fares must be affordable for women, notably by taking account of the fact that they make series of journeys which in most cases call for the use of several tickets;

Safety and security in public transport are crucial issues which disproportionately affect women. To take account of safety problems, women should be allowed greater scope to alight closer to their final destination, outside the normal bus stops, in the evening and at night. Awareness campaigns targeting both bus drivers and passengers should also be promoted to improve women's safety;

ICT and gender mobility

The impact of the ICT on the mobility of persons and in particular on gender mobility is anything but clear, above all when considering the capacity of the technological instruments to reduce the need for travel and car dependency. The empirical evidence on the relation between the diffusion of ICT and mobility patterns is still weak. Moreover, it is necessary to evaluate carefully the trade-off between the potential benefits of teleworking practices for the mobility system and the potential negative effects on working conditions. In particular teleworking could lead to spill-over effects on family time and longer working hours, which may aggravate work-home conflict, particularly amongst women. Further drawbacks such as the risk of isolation, loss of visibility and limited career prospects could affect women more than men.

Considering the complexity of the questions regarding ICT developments and their effects on social and economic conditions, more information and more research is required on the interactions between the diffusion of ICT technologies and mobility (dimension and patterns) as well as the effects on the labour market and on the social context. To this end a fundamental role is played by international institutions, which could promote comparative

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research on the impact of ICT on society, as well as its potentialities and weaknesses. Furthermore, international institutions could promote pilot projects and practices supported by a cogent and rigorous methodology, including the monitoring and evaluation of implementation and outcomes, taking into due account that changes in (mobility) behaviours usually take time.

4. CONCLUSION

Women's travel patterns differ from men's in many ways: they are likely to travel shorter distances than men, are more likely to use public transportation, engage in more non-work travel outside rush hours and make more multi-stop journeys, run household errands and escort other passengers (usually kids or dependent elderly).

In both the international literature and transport planning, the gender dimension in mobility patterns and sustainability has received relatively little attention so far, even though gender is considered, together with age and income, a significant factor in accounting for differences in mobility behaviour, with women recognised as being more likely to adopt sustainable travel behaviours than men. Furthermore, according to some studies, women are more likely than men to support or accept sustainability and green economy policies as they appear to be more sensitive to environmental risks and more prepared for the behavioural changes required to sustain significant climate change mitigation and adaptation policies.

The scant attention paid to gender differences is in part due to the lack of gender differentiated statistics, which make it hard to understand gender differences in reasons for making journeys, journey frequency, distance travelled, mobility related problems in accessing services and employment.

According to most studies gender differences in travel patterns are mainly accounted for by the division of roles in the labour market and in the family, which affects women's employment conditions, income levels and mobility needs. The availability of public transportation outside rush hours, the physical and financial accessibility of transport facilities for women with little or older children, disabled persons, as well as safety conditions, are the main aspects to be considered in designing women-friendly transport systems.

The evolution of household and parental models, the new developments in the labour market with the spread of new forms of work and increased labour market participation on the part of women as well as population ageing and new technologies are likely to increase the variety of mobility patterns and call for appropriate transport policies able to combine attention to sustainability with consideration of gender- and age-specific mobility needs.

As women appear to be more environment-friendly than men and as women's mobility patterns seem to be closely related to empowerment, access to opportunities and independence, the adoption of a gender perspective in transport policies is particularly

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relevant both for reducing gender economic and social inequalities and for supporting more environment-friendly development.

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