

### Women's Issues in Transportation

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# Bridging the Gap

### Bridging the Gap Among Countries – chaired by Stephen Perkins

The third day of the conference began with a plenary session aimed to bring perspectives from contrasting economies on core gender issues of access to transport services. It was expected to find major structural differences in key issues and policy responses relating to safety, security. choice and empowerment between regions and particularly between developing and more developed countries. Instead, commonality and more of a continuum was found, with more extreme cases of the general trends in developing countries, even though the priorities and implementation strategies were different. Improved data on travel patterns and trends is vital to understand priorities for addressing gender issues and for getting the political attention needed to address issues of gender equity, safety and security.

Critical issues and needs of women as users of the transportation system in developed and developing countries were identified throughout the session. Protected infrastructure for active modes of transport and safe, secure and affordable public transport is essential everywhere, with women representing a disproportionately large component of users of these modes. Integrated transport and land-use planning is critical to promote access to work and services, as opposed to promoting mobility, with an emphasis on mixed land use and affordable housing in proximity to centres employment. The challenge in of developing countries is to find land in



central districts where work opportunities for women are located and ensure continued access to work without recourse to motorized transport.

The focus for safety needs to be on walking, cycling and motorized two wheelers; 30-50% of deaths on the road in developing countries are pedestrians, where women are overrepresented. Particular attention also needs to be paid to motorcycle passengers in these countries; helmet wearing rates are particularly low for passengers.

(continued on page 2...)

for all road users is a pre-requisite for ensuring sustainable and inclusive cities"

"Safe travel

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#### Bridging the Gap Among Countries...continued

In addition, security and freedom from sexual crime in public transport requires critical attention by building a culture of intolerance to harassment of women. This requires intensive public relations outreach by the police and transport authorities, including through social media targeted at the most vulnerable groups. Reporting of incidents is essential if perpetrators are to be identified and stopped (using CCTV, electronic ticket records etc.). Dedicated transport police forces have proved most effective in bringing sex related and other crime down on public transport systems.

Finally, the gap in terms of gender analysis in transport between developed and developing countries requires an acceleration of knowledge transfers by

promoting the dialogue on constraints to women and providing technical assistance to governmental organizations in designing and implementing policies.

Panelists:

- Patricia Hu, US Department of Transportation
- Geetam Tiwari, Indian Institute of Technology
- Andrew Trotter, British Transport Police
- Veronica Raffo, World Bank
- Socheata Sann, Centre for Accident Research and Road Safety

"Gender needs in transportation planning and modelling should not only be based on cost minimisation but on safety and security of users, diverse social and cultural characteristics and environmental objectives ."

# BREAK OUT SESSIONS

#### Women's specific concerns in transport security - moderated by Dawn Spanhake

Marion Tillous and Gaëlle Gillot presented Women-Only Passenger Cars in Cairo's Metro: Widening the Gap to Bridge it Later? This research is part of a project that studies malefemale interactions in different subway systems, particularly those where sex segregation has been in operation. The institutional decision to separate men from women in urban transportation was identified as a response to the harassment problem in transportation. This study is based



on a case study of women-only passenger cars in Cairo Metro trains and examines the question of institutional intentions of the sex segregation in the subway. It also demonstrates that factors specific to Egypt play a secondary role in comparison to more transverse factors such as class.

Anne Victoria presented *Bus Stop Matters: Exploring the Gendered Perspective of Functional Health.* Based on ethnographic fieldwork from a phenomenological perspective, this study explores the bus users' lived experience of navigating the bus stop during the implementation of the Bus Stops Only policy at Knoxville Area Transit

in Knoxville, Tennessee. It does this by disaggregating the ethnographic and survey data by gender then examines the different ways the genders talk about the bus stop and physically maneuver around the bus stop. This awareness fills the gap toward a more effective program of active transportation and guides improvements in transport policy, such as the importance for a better bus stop design.









### **BREAK OUT SESSIONS**



#### Travelling with or for children - moderated by Asa Vagland

The breakout session on travelling with or for children examined women's issues in transportation from the perspective of mothers. Childcarerelated activities often occur outside of household and therefore the necessitate trip making. This session examined gender differences in travel activity and complexity following significant life-course events, with a particular focus on childcare-related travel and escortina. Takahiro Ishigami from the Institute of Sciences Behavioral in Japan presented a study on daycare-related trips for working women between 20 and 39 years old in the Tokyo Metropolitan Area. This study found that households with children have



times, and that trip chaining using multiple modes of transportation is common in the morning period for mothers.

longer

travel

Recommendations included creating more daycare facilities and locating them close to suburban railway



stations to reduce the travel burdens on commuting mothers.

Leslie Belton Chevallier from IFSTTAR

identified explanatory factors for sharing escorting duties of children to school in dual earner families. This research was based on a household travel survey



in Ile-de-France. Main results include that approximately half of all parents escort children to

school at least once per day, women escort more than men, and that the main determinants of escorting decisions are the parents' employment conditions. Joachim Scheiner from the Technische Universitat Dortmund presented research on the changes in the complexity of activity patterns and trip chaining patterns in Germany following life-course events. Significant changes in mode choice in both men and women were found in relation to having and giving birth to children. Mothers tend to drive less after having their first child, but drive more after having further children, while increased bicycle use for males is associated with having children.

Discussion following the presentations raised several research needs regarding travel behaviour changes related to life course events, including the elderly life stage, health-related events, planned versus unplanned events, and urban versus rural communities. The need for research on childcare-related travel behaviours of single parents was also expressed.



#### Impact of gender role on safety – moderated by Sandra Rosenbloom

Ludivine Gueho and Karyn Pravossoudovitch from IFSTTAR and the University of Aix-Marseille presented their findings on driving behavior among young French people. Their studies show that differences in car crashes



are explained by sex and gender of individuals. Masculinity negatively impacts driving behaviour. Therefore, gender stereotype conformity is a better predictor of declared injury risk behaviours than biological sex. For example, drivers who associate themselves as more "feminine" were less likely to be involved in a car crash. Their results also highlighted the prevalence of stereotypes regarding perception of driving behaviours. Both French male and female drivers think that males are more skillful drivers.



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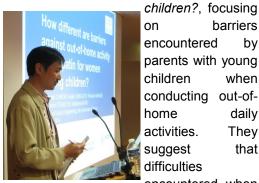
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# BREAK OUT SESSIONS

#### Impact of household role on mobility— moderated by Maryvonne Plessis-Fraissard

P. Jorritsma and N. Schaap presented Families on the run: how do Dutch households with young children organize their travel behaviour? They examined how Dutch parents with young children organise their mobility in terms of school- and preschool-related travel in combination with work travel. By using quantitative data from the Dutch National Travel Survey from 2004 to 2009, they identified three main travel activity patterns: the so called 'Combination day', a 'Care day' and a 'Work day'. The authors discussed the kind of constraints parents encounter in their weekly scheduling and which strategies they apply to fulfil their mobility patterns.

N. Ohmori, N. Taniguchi, R. Manabe, Y. Terauchi, and S. Aono presented How different are barriers against out-of-home activity participation for women raising

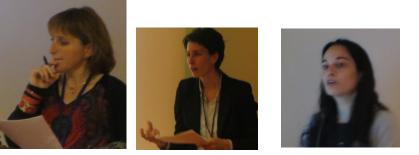


barriers on encountered bγ parents with young children when conducting out-ofhome dailv activities. They suggest that difficulties encountered when conducting out-of-home activities differ given different living areas. Mothers with children under three years old and nuclear families not living close to others who could support them in raising children felt the existence of more barriers. On the other hand, mothers with more years of experience in child-raising felt fewer difficulties in raising children.

K. Sicks, J. Scheiner, and C. Holz-Rau presented Born to shop: Gender-



specific activity travel in Germany. They aimed to examine whether gendered shopping participation goes beyond differences in employment and labor division within households. The results indicate that gendered travel behavior is largely affected by labor division within households but still goes beyond that. For instance more frequent shopping trips can even be observed for single women. This result can be interpreted as an indirect indication of gender norms, preferences and attitudes. Discussions focused on how internet shopping can affect travel patterns and behaviors associated with shopping activities.



#### Mobility: the new generations - moderated by Therese MacMillan

Marolda Maria Cristina, Noreen McDonald, and Sigal Kaplan presented three papers on Mobility: the new generations. They brought insightful results on mobility and differences between generation and gender. Their studies show that there are changes in values in terms of family

habits, traveling habits, management style, and car ownership since the 1990's. distance Long trips are increasing and our society is oriented towards more "service" mobility than "product" mobility (new



technology in transit system vs. car). The generation Y (people born between 1980 and 2000) tend to use less motor vehicle to go to places than did the generation X at the same age. Employment and holding a driver's license

> can explain variations in mobility in today's society. Their studies also showed that gender gap increases with age, both in rural and urban areas.

### BREAK OUT SESSIONS

#### New technologies and new mobilities - moderated by Owen Waygood

This session investigated the influence of plug-in electric vehicles, connected vehicles, information communication technologies, and online social networks on mobility.

Ms. Capperello examined early drivers of plug-in electric vehicles (PEVs) from a gendered perspective. Women and men may have differing responses to the new performance attributes of PEV, for example, the relationship between driving range per battery charge and charging locations. Among these PEV drivers, women feel they are solving practical problems while men see an R&D project. From an environmental point of view, men looked into impacts of gasoline and pollution although women felt they were acting on their ideals.

The second presentation examined women's acceptance of and willingness-topay for connected vehicles (CV). This study was based on a survey and found that when purchasing vehicles, women more concerned are about automobile safety, fuel consumption, and environmental impacts than men. Although their budgets for vehicle purchases are lower than men, women are willing to pay as much for CV technologies. Both genders considered the collision package the most important technology with CVs.

Ms. Polydoropoulou's research investigated the relationship between Information Communication Technologies (ICT) and Online Social Network (OSN) use and trip-making behaviour. The

analysis investigated usage characteristics by gender and developed models for social-related trips. The models identify three OSN usage styles: rational, addictive, and indifferent. People categorized as rational and addictive OSN users tend to conduct more social trips than those who are indifferent.



Gender difference in cycling - moderated by Francis Papon

This session presented an overview of cycling trends with a gendered perspective in three different countries: the United States, the Netherlands, and England.



Dr. Susan Handy presented findings on a survey she conducted in Davis, California on perceptions of cycling between men and women. The city of Davis

has a high percentage of women cyclists for the U.S, about 41%. However, women and girls are cycling less than their male counterparts. Additionally, women are more

concerned about safety within cycling than men. The results from this survey have broad policy implications. In order to increase the number of women cycling cities need to build bicycle



facilities that are more comfortable for women, such as cycle tracks and increase the number of bike lanes.

Scott Le Vine presented a study on the recent surge in cycling within London. His paper, entitled *Gender* 

and the growth of cycling in a megacity region: Emerging evidence from London identifies women as the central contributors to the recent surge in cycling. Women are disproportionately representing the growth for cyclists in London. Although there has been a long-term decline in cycling within Britain, cyclists within London now account for one-

third of peak hour traffic. However, despite women leading the way as cyclists in London, men still outnumber women as cyclists.

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# **BREAKOUT SESSIONS**

#### Gender difference in cycling ... continued

Angela Van der Kloof presented *Bicycle lessons, activity participation and empowerment*. This presentation provided an overview of work being done in the Netherlands to empower immigrant women to use bikes as a means of transportation. Angela highlighted the role of cycling in the Netherlands as a way to increase access and participation in society. Angela discussed her work





teaching immigrant women to ride bikes comfortably and confidently, thus increasing their mobility in the urban sphere.

#### Social role and mobility of working women- moderated by Janet Oakley

Farzad Arabikhan from the University of Portsmouth, presented on the *Preference Towards Telecommuting (for work) with an Emphasis on Women.* He found that women who are young, have children, have access to a company car, and place importance on reports and correspondence are less likely to adopt telecommuni-

"Living in the suburbs can be a "gender trap" for women"

cations, while ideologies about productivity, family well-being, and travel time increase women's preference to telecommuting.

Christine Hudson, a political scientist at Umea University, presented on the gendered consequences of increased mobility in Sweden regional suburbs in terms of two scenarios: *left holding the baby or bringing home the bacon jointly (i.e. increased career opportunities)*. She found that neither scenario holds completely accurate, however there is indication that women are able to take advantage of regional enlargement to expand their work options, especially with improved public transport systems, privatization of work, and higher income for women.

Cornelia Rahn, from the German Aerospace Center, presented on *Gendered Mobility and Work in Berlin's Post-Socialist Suburbia*. She found that women manage to adopt different strategies in order to work while living in sub-



urbia. Women in East Germany living within a more traditional housewife culture tend to work full time but below their qualifications and close to home, while women in West Germany living within a more "double-

provider" culture work mostly within their qualification standards, able to commute longer distances to city centres, however only part time. An interesting aspect of her presentation was regarding the existing opportunity for using social capital (i.e. interaction between community residents) in these communities to provide support for women.

One issue is that although improving transportation systems can improve the quality of life of women, there are many more underlying social issues that need to also be addressed. Further research is required on the "intersection" between genders and other influencing factors. There is also a need for more public-private partnerships to provide alternative solutions that are compatible with local communities, such as utilizing social capital and creating community organizations.

### **PLENARY SESSION**

#### Transportation Professions Session- chaired by Marsha Anderson Bomar

This plenary session discussed bridging the gendered gap in careers by attracting, advancing, and attaining women in transportation. Currently, women studying engineering at the undergraduate level has plateaued at 20-30% and at the leadership roles are significantly under-represented.

The panelists were three extremely successful women in significant leadership roles, who shared their experiences and challenges to achieve success in their male-dominated fields. The panelists were Susan Kurland (Assistant Secretary of Transportation for Aviation and International Affairs), Katy Ware (Head of International Maritime Co-



ordination – Permanent Representative of the UK to the IMO) and Katie Turnbull (Executive Associate

Director, Texas A&M Transportation Institute; and Director, Transportation Economics Center).



The panelists provided advice to women including looking for mentors and sponsors, and creating a supportive network that can help them advance and obtain skills. Men tend to be decision makers; therefore they also need to be part of the conversation when speaking about sponsorship. Women tend to be more hesitant to put themselves forward; however the panelists advised women to become vocal and visible and someone who is called upon in the industry. Statistics have shown that increasing the representation of professional women in roles. especially in leadership roles, increases the success of an organization.



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"We all have an obligation to encourage and make opportunities available to other women"

Marsha, based on her successful consulting and professional career, shared that there is a Language of Leadership and it is critical that women learn it.

The panel also stressed the importance of



volunteering for the students and young professionals in attendance as a way to receive opportunities and become TRB experts in their field. provides many volunteer opportunities through 200 task forces and committees which can lead to many other opportunities.

Don't be afraid to increase your visibility!

### MASTER CLASS

#### **Research and Publication** - Sandra Rosenbloom

Dr. Rosenbloom led an intimate discussion with a small group of students in the Master Class on strategies for making research internationally publishable. She discussed cultural differences in how Americans and Europeans view research. Understanding the work of previous researchers is critical so that we "don't reinvent the wheel." Conducting comprehensive literature reviews improves our quality as researchers by helping us ask better questions and identify different methods. To have a presence on the international stage, Dr. Rosenbloom encouraged non-native English speakers to improve their English skills and review work from other countries in addition to their own. She encouraged female researchers to not "fear their results," but to deepen their writing on the meaning of their research rather than on the background and methods.





This conference tried to determine "how to bridge the gap" between gender mobility in order to address the needs of women as users of the transportation system which in turn benefits their economic and social quality of life. Therese Mc Millan concluded the conference with a series of panelists by providing a summary of the key findings and needs that arose from the conference. She stated that we are not dealing with women's issues in transportation in a homogenous manner, rather looking at the distinction between developed-developing countries, levels of income, age levels, cultural differences, generational differences, and other impacting factors that will determine the path we will take to understand and address these issues. There is a critical need for quantitative genderbased information as well as qualitative individual experiential evidence in order to identify the root cause of gender-based transport issues and increase aware-

ness to these existing issues. Research designed to address transportation solutions should draw on technological innovations, particularly technological adaptation, as well as social aspects of the used system.

### Have to plan for tomorrow's women...But we mustn't forget the aging society!"

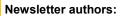




The panelists included Lynn Peterson (Secretary, Washington (State) Department of Transportation, Catherine Coutelle (Elected Official), Dr. Camelia Ravanbakht (Hampton Roads MPO).







# Editor: Marsha Anderson Bomar Stantec

Rebecca Peterniak, University of Manitoba

Maryam Moshiri, University of Manitoba

Claire Papaix, IFSTTAR

Beatrice Degraeve, IFSTTAR

Laura Costa, IFSTTAR

Ludivine Gueho, IFSTTAR Karyn Pravossoudovitch, IFSTTAR Kate Lefkowitz Melanie Wilbur, SRBI Morgan Campbell



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### Wrap Up Session – moderated by Therese Mc Millan



She stated that we are not dealing with women's issues in transportation in a homogenous manner, rather looking at the distinction between developed-developing countries, levels of income, age levels, cultural differences, generational differences, and other impacting factors that will determine the path we will take to understand and address these issues.

The second panel included: Laurie Pickup (Researcher), Lito Achimastos (COLAS), and Ph. D. students Ines Kawgan-Kagan and Adeel Yousaf.

The conference also aimed at "bridging the gap" between research, policy and practice. The challenge is determining the approach to take in addressing the issues discussed throughout the conference, in terms of political action, industry/professional roles in increasing awareness, role of mobility in lifestyles, and user's mindsets. It is important for researchers to also identify the tools required to address these needs. It was emphasized that the presence of women in decision making roles is essential and that further understanding of the context of public versus private sector needs to be analyzed.

Women's Issues In Transportation



**Fifth Conference** Paris, France 14—17 April 2014

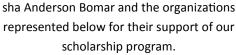
> "The universal message is that all of the voices need to be heard."







Thank you to Susan Herbel, Mar-





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**And in closing** ... There are many to be thanked for a wide variety of reasons. You know who you are and we know in our hearts. For fear of leaving out a name or two, we will not list you by name but send our sincere gratitude for the hard work, commitment, financial support, creativity, and participation over the course of the past three years. Each person who touched this endeavor made it possible for this conference to be of the highest quality and value for all. We thank TRB Committee ABE70—Women's Issues in Transportation for supporting this effort.

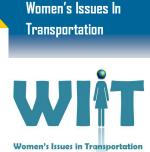
We re-iterate our thanks to the FIA for opening their facilities to us for meetings and for the Gala. The sponsorship of such a world class event was recognized by all as the support for the important work all do.

It is most important that we do take a moment to thank IFSTTAR, under the leadership of Helene Jacquot-Guimbal. Her appreciation for the importance of this conference was unwavering. Her commitment of staff resources was extraordinary. You are the best.

A well-deserved standing ovation at the closing session summed up the appreciation of the participants for the leadership of Ariane Dupont. There is no way to say a sufficient thank you for all that you did and all that you inspired others to do, for the good of the conference. (We thank your family as well!)







Fifth Conference Paris, France 14—17 April 2014

Watch for the announcement of the next conference dates and location. You can follow us on our Committee google website or on our Committee Facebook page.







Thank you to Susan Herbel, Marsha Anderson Bomar and the organizations represented here for their support of our scholarship program.





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