

URBAN TRANSPORT AND SOCIAL EQUITY

Tutor: Daniel Oviedo Hernandez

Assessment: **Coursework (2500 words) (50%)**
 Student presentations (15% of assessment)
 Case study analysis from an equity perspective (35% of assessment)

Introduction

This module focuses on the relationships between social identity, transport and planning in the context of urban development in the Global South. Reflecting on the intersecting social relations of class, gender, ethnicity, religion, race, age and physical/mental ability in processes of urban development, it examines how spatial and social mobilities are deeply intertwined in the reproduction of both spatial and social inequalities in cities. It critiques and explores the implications for transport planning and its interaction with other kinds of planning, and the relationships between the state, civil society and private sector in the provision of transport for more socially just cities.

Objective

The objectives of the module is to introduce students to the structural drivers of inequality related to spatial and social mobilities in cities of the Global South; to examine the relationships between formal and informal urban and transport development in cities of the Global South; and to explore the implications for a more socially just and integrated urban transport planning.

On completion of the module, students should have acquired:

- Understood the relationships between social relations (of class, gender, ethnicity, race, religion, age and physical/mental abilities), urban development, and urban mobilities.
- Understood the relationship between formality and informality in urban and transport processes in cities of the Global South
- Critically examined the role of transport planning and its methodologies in the reproduction of inequalities in social and spatial mobilities
- Explored the relationships between organisations in the state, civil society and the private sector in delivering more social just transport planning

Content

Part 1 of the module, entitled *Positions between Theory and Practice* (sessions 1-4), will examine the different theoretical and conceptual understandings of transport equity and urban mobility, demonstrated where relevant in a selection of urban practices. Sessions will address: transport, development and the reproduction of inequality in cities; mapping approaches to inequality in urban transport planning; environmental justice and transport systems; the fallacy of travel choice.

Part 2 of the module, entitled *Critical Perspectives on Urban Transport Planning and Collective Action* (sessions 5-9), will examine different methods and instruments used by transport planning, critically examining their implications for transport equity. Sessions will examine the following topics: reviewing the methodology repertoire of transport planning; transit oriented development (TOD) and socio-environmentally just cities; how smart are smart cities? the formal-informal continuum of urban transport provision and use; transport planning, insurgent practice and political participation.

Operation

The module will comprise a mix of lectures, together with seminar discussions, student presentations, and group activities. Lectures will define and discuss basic concepts and the debates around them. Participants will have an opportunity to select, explore and present concepts and methodologies related to the module, and their application in practice, based on either their own experience or on selected cases. See Appendix 1 for the programme of student presentations, which will be finalised in the first session of the module.

Working in groups, participants will also explore and critically assess the application of traditional transport information for the study of social equity.

The coursework is an individual essay in which learners are asked to critically discuss a topic of their choice from the module, exploring the theoretical, methodological and/or planning dimensions of the topic in the light of transport equity.

Assessment

All forms of assessment will stress the participants' analytical and reflective skills in confronting the theory and practice of transport equity in urban areas.

The assessed elements of the module consist of one piece of coursework (2500 words), comprising 50% of the marks, student presentations of key concepts, comprising 15% of the final grade, and a group project (oral presentation) on the case of Bogota, comprising the remaining 35%.

The coursework is to be submitted at the end of the course and students will receive timely feedback.

Programme

Part I: Positions between theory and practice

In **Part I** will examine the different theoretical and conceptual understandings of transport equity and urban mobility, demonstrated where relevant in a selection of urban practices.

Session 1: Transport, development and the reproduction of inequality in cities

Introduction to the structure and main concerns of the module. This session will explore the relationships between transport, development and urban development, drawing out the underlying assumptions about transport planning, development and urban inequality. The first part of this session will define mobility in contemporary transport debates, interrogate development models which link transport and economic growth, the rationale for mega transport projects and the high proportion of transport investment in aid agencies and governments.

The second part of the session will critically discuss the relationship between transport, land use and urban development models, examining the implications for city structure, suburbanisation, urban fragmentation and informality. Based on this understanding, the session will also discuss transport projects and city-wide planning.

Readings

Oviedo Hernandez, D. and Dávila, J.D. (2016) "Transport, urban development and the peripheral poor in Colombia—Placing splintering urbanism in the context of transport networks", *Journal of Transport Geography* 51, pp. 180-192.

Leinbach, T.R. (2000) "Mobility in development context: changing perspectives, new interpretations, and the real issues", *Journal of Transport Geography*, 8, pp. 1-9.

Vasconcellos, E. (2001) *Urban Transport: Environment and Equity: The Case for Developing Countries*, London and Sterling VA: Earthscan, Ch 5.

Defining Mobility

Cresswell, T. (2010) "Towards a politics of mobility", *Environment and Planning D: Society and Space*, Vol. 28, No. 1, pp. 17-31.

Merriman, P. (2009) "Mobility", in *International Encyclopedia of Human Geography*, edited by Rob Kitchin Nigel Thrift, Elsevier, Oxford, pp. 134-143.

Sheller, M and Urry, J. (2006) "The new mobilities paradigm", *Environment and Planning A*, 38, 2 pp. 207-226.

Transport and development

Docherty, I., Shaw, J. & Gather, M. (2004) "State intervention in contemporary transport", *Journal of Transport Geography*, 12, pp. 257–264.

Sanchez, T. (2009) "Poverty, policy, and public transportation", *Transportation Research Part A: Policy and Practice*, Volume 42, Issue 5, pp. 833-841.

Wachs, M. (2010) "Transportation Policy, Poverty, and Sustainability", *Transportation Research Record: Journal of the Transportation Research Board*, 2163(1), pp. 5-12.

Willoughby, C. (2002) *Infrastructure and Pro-Poor Growth: Implications of Recent Research*, DFID Research Paper.

Oviedo Hernandez, D. and Dávila, J.D. (2016) "Transport, urban development and the peripheral poor in Colombia—Placing splintering urbanism in the context of transport networks", *Journal of Transport Geography* 51, pp. 180-192.

Transport and urban development

Chen, M. A. (2014) *Informal Economy Monitoring Study Sector Report: Home-Based Workers*, Cambridge, MA, USA: WIEGO.

Cervero, R. (2005) *Progressive transport and the poor: Bogota's bold steps forward*, University of California Transportation Center.

Davila, J. D. (2013). Urban mobility and poverty: Lessons from Medellin and Soacha, Colombia. available at: <http://www.bartlett.ucl.ac.uk/dpu/metrocables/book>

Hall, P. (1988) *Cities of Tomorrow*, Malden, MA: Wiley-Blackwell, Ch.3 & 9 (Transport Planning).

Hasan, A. and Raza, M. (2015) *Responding to the transport crisis in Karachi*, Working Paper, IIED, July, 49 pages.

IEMS, (2014) *The Urban Informal Workforce: Waste Pickers/Recyclers*, Sector Report, WIEGO and Inclusive Cities, 4 pages.

Kaltheier, R. (2002) *Urban transport and poverty in developing countries: Analysis and options for transport policy and planning*. Eschborn, Germany: Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) GmbH.

UN-Habitat (2009) "Planning, Spatial Structure of Cities and Provision of Infrastructure", *Global Report on Human Settlements 2009 – Planning sustainable cities*, pp. 152-166.

UN-Habitat (2013) *Planning and design for sustainable urban mobility: Global report on human settlements 2013*, Taylor & Francis.

World Bank (2002) *Cities on the Move: A World Bank Urban Transport Strategy Review*, World Bank Ch 2 & 3.

Coupé, F. (2013) "Metrocables: Risk, Poverty, and Inclusion", in Davila, J. D., *Urban mobility and poverty: Lessons from Medellin and Soacha, Colombia*, available at: <http://www.bartlett.ucl.ac.uk/dpu/metrocables/book>

Session 2: Mapping approaches to inequality in urban transport planning

This session will critically review the different ways to define and measure transport inequality, making explicit the underlying theoretical approaches. This will involve mapping the notions of transport and social exclusion, transport disadvantage and poverty; mobility as capability/well-

being; transport and the right to the city; and transport sustainability. Participants will work in pairs to develop a poster for each approach, structuring the poster as follows:

- definition of the concept
- the key authors,
- how the concept has been operationalized
- selected examples of practice, and
- analysis of the strengths and weaknesses of the approach to address transport equity.

Readings

Ernste, H., Martens, K. and Schapendonk, J. (2012) "The Design, Experience and Justice of Mobility", *Tijdschrift voor Economische en Sociale Geografie*, Vol.103, No. 5; pp. 509-515.

Jones, P. and Lucas, K. (2012) "The social consequences of transport decision-making: clarifying concepts, synthesising knowledge and assessing implications", *Journal of Transport Geography*, 21, pp. 4-16.

Titheridge, H., Oviedo Hernandez, D., Ye, R., Christie, N., & Mackett, R. (2014) "Transport Poverty: Concepts, Measurement and Policy Perspectives". Available at: <https://www.ucl.ac.uk/transport-institute/pdfs/transport-poverty>

Transport and social exclusion

Cass, N., Shove, E. and Urry, J. (2005) "Social exclusion, mobility and access", *Sociological Review* 53 (3), pp. 539–555.

Oviedo Hernandez, D., & Titheridge, H. (2015) "Mobilities of the periphery: Informality, access and social exclusion in the urban fringe in Colombia", *Journal of Transport Geography* 55, pp. 152–164.

Lucas, K (2011) "Making the connections between transport disadvantage and social exclusion of low income populations in the Tshwane region of South Africa", *Journal of Transport Geography*, 19, pp. 1320–1334.

Lyons, G. (2003) "The introduction of social exclusion into the field of travel behaviour", *Transport Policy*, 10(4), pp. 339-342.

Kenyon, S., Lyons, G. and Rafferty, J. (2006) "Transport and Social Exclusion: Investigating the Possibility of Inclusion through Virtual Mobility", *Journal of Transport Geography*, 10, pp. 207-19.

Preston, J. and Rajé, F., (2007), "Accessibility, mobility and transport-related social exclusion", *Journal of Transport Geography*, Vol. 15 (3), pp. 151-160.

Stanley, J. and Lucas, K. (2008) "Social exclusion: What can public transport offer?", *Research in Transportation Economics*, Vol. 22 (1), pp. 36-40.

Stanley, J. and Vella-Brodrick, D. (2009) "The usefulness of social exclusion to inform social policy in transport", *Transport Policy*, 16, pp. 90-96.

Ureta, S. (2008) "To move or not to move? Social exclusion, accessibility and daily mobility among the low-income population in Santiago, Chile", *Mobilities*, Vol. 3 (2), pp. 269-289.

Transport disadvantage and poverty

Blumenberg, E. and Manville, M. (2004) "Beyond the Spatial Mismatch: Welfare Recipients and Transportation Policy", *Journal of Planning Literature*, 19(2), pp. 182- 205.

Currie, G. and Delbosc, A. (2010) "Modelling the social and psychological impacts of transport disadvantage", *Transportation*, 37(6), pp. 953-966.

Delbosc, A. and Currie, G. (2011) The Spatial context of transport disadvantage, social exclusion and well-being, *Journal of Transport Geography*, 19, pp. 1130–1137.

Olvera, L. D., Plat, D., & Pochet, P. (2003) "Transportation conditions and access to services in a context of urban sprawl and deregulation: The case of Dar es Salaam", *Transport policy*, 10(4), pp. 287-298.

Titheridge, H., Oviedo Hernandez, D., Ye, R., Christie, N., & Mackett, R. (2014) "Transport Poverty: Concepts, Measurement and Policy Perspectives". Available at: <https://www.ucl.ac.uk/transport-institute/pdfs/transport-poverty>

Transport as capability/well being

Beyazit, E. (2011) "Evaluating social justice in transport: Lessons to be learnt from the capabilities approach", *Transport Reviews*, Vol. 31, No 1, pages117-134.

Kronlid, D. (2008) "Mobility as Capability", in Tanu Priya Uteng and Tim Cresswell (editors), *Gendered Mobilities*, Aldershot and Burlington: Ashgate Publishing, pp. 15-33.

Robeyns, I. (2003) "Sen's Capability Approach and Gender Inequality: Selecting Relevant Capabilities", *Feminist Economics*, Vol. 9 (2 – 3), pp. 61 – 92.

Smith, N., Hirsch, D. and Davis, A. (2012) "Accessibility and capability: the minimum transport needs and costs of rural households", *Journal of Transport Geography*, 21, pp. 93-101.

Transport and the right to the city

Levy, C. (2013) "Travel choice reframed: "deep distribution" and gender in urban transport", *Environment & Urbanization*, Vol. 25, No.1, pp. 47-63.

Murthy, K. (2011) "Urban transport and the right to the city: accessibility and mobility", in Marie-Hélène Zérah, Véronique Dupont, Stephanie Tawa Lama-Rewal (editors), *Urban Policies and the Right to the City in India: Rights, Responsibilities and Citizenship*, UNESCO, India and CSH, India..

Zérah, M., Lama-Rewal, S.T., Dupont, V. and Chaudhuri, B. (2011) "Introduction: The Right to the City and Urban Citizenship in the Indian Context" in Zérah, Marie-Hélène, Véronique Dupont, Stéphanie Tawa Lama-Rewal (eds) *Urban Policies and the Right to the City in India: Rights, Responsibilities and Citizenship*, UNESCO, India and CSH, India.

Transport and Equity

Liftman, T. (2016) "Evaluating transportation equity: Guidance for incorporating distributional impacts in transportation planning", Victoria Transport Policy Institute.

Guzman, L. A., Oviedo, D., & Rivera, C. (2017). Assessing equity in transport accessibility to work and study: The Bogotá region. *Journal of Transport Geography*, 58, 236-246.

Delbosc, A., & Currie, G. (2011). Using Lorenz curves to assess public transport equity. *Journal of Transport Geography*, 19(6), 1252-1259.

Bröcker, J., Korzhenevych, A., & Schürmann, C. (2010). Assessing spatial equity and efficiency impacts of transport infrastructure projects. *Transportation Research Part B: Methodological*, 44(7), 795-811.

Transport sustainability

Bannister and Hickman, (2006) "How to design a more unsustainable and fairer built environment transport and communications, *Intelligent Transport Systems*, IEE Proceedings, Vol. 153, No 4, pp. 276-291.

Button, K. (2009) "Transport and Sustainability", in *International Encyclopedia of Human Geography*, edited by Rob Kitchin Nigel Thrift, Oxford: Elsevier, pp. 435-440.

Kenworthy, J.R., Laube, K.B., (1996) "Automobile dependence in cities: An international comparison of urban transport and land use patterns with implications for sustainability", *Environmental Impact Assessment Review*, Volume 16, Issues 4–6.

Litman, T. (2007) "Developing indicators for comprehensive and sustainable transport planning", *Transportation Research Record: Journal of the Transportation Research Board*, 2017, pp. 10-15.

Richardson, B. C. (2005) "Sustainable transport: analysis frameworks", *Journal of Transport Geography*, 13(1), pp. 29-39.

Session 3: Environmental justice and transport systems

This session will examine the relationships between environmental justice and urban transport. Based on a definition of environmental justice that addresses distribution, reciprocal recognition and parity political participation, the first part of the session will examine the environmental impacts of transport on transport users using different modes and diverse urban residents in different parts of the city. This includes health impacts as a result of pollution and accidents. This session will examine such impacts and explore how communities and governments have responded to these challenges.

The second part of the session will review the use of environmental resources by transport, and the implications for environmental justice. This includes an understanding of distributional consequences of the use of renewable and non-renewable resources like land and different forms of energy, and the implications of pollution for global sinks and thus for carbon neutral cities. The session will explore how communities and government have sought to address these challenges, for example through promoting public transport; restricting car use and promoting cleaner technologies.

Readings

Deka, D. (2004) "Social and Environmental Justice Issues in Urban Transportation", in *The Geography of Urban Transportation*, edited by Hanson, S. and Giuliano, G. New York: Guilford Press, pp. 332-355.

Essebo, M. and Baeten, G. (2012) "'Contradictions of 'Sustainable Mobility' – The Illogic of Growth and the Logic of Myth", *Tijdschrift voor Economische en Sociale Geografie*, Vol. 103, No. 5, pp. 555–565.

Levy, C. and Dávila, J., (2017) "Planning for Mobility and Socio-Environmental justice? The case of Medellín" in A. Allen et al (eds), *Environmental justice and resilience in the urban Global South: An emerging agenda*, Palgrave (forthcoming).

Mercier, J. (2009) "Equity, social justice and sustainable urban transportation in the twenty first century", *Administrative Theory and Praxis*, 31 (2), pp. 145-163.

Pearsall, H. and Pierce, J. (2010) "Urban sustainability and environmental justice: evaluating the linkages in public planning/policy discourse", *Local Environment*, 15, pp. 569-580.

Health impacts

Braveman, P. (2014) "What are health disparities and health equity? We need to be clear", *Public Health Reports*, 129.

ADB, (2008) *ADB, Roads, and HIV/AIDS: A Resource Book for the Transport Sector*. Technical report. <http://www.hivpolicy.org/Library/HPAGES001446.pdf>

Braver, E.R. (2003) "Race, hispanic origin, and socioeconomic status in relation to motor vehicles occupant death rates and risk factors among adults", *Accident Analysis Prevention*, 35, pp. 295–309.

Bostock, L. (2001) "Pathways of disadvantage? Walking as a mode of transport among low-income mothers", *Health & Social Care in the Community*, 9, pp. 11–18.

Cervero, R. et. al. (2009) "Influences of built environment on walking and cycling: lesson from Bogota", *International Journal of Sustainable Transportation*, Vol.3, No. 4, pp. 203-226.

Christie, N., Ward, H., Kimberlee, R., Lyons, R., Towner, E., Hayes, M., Robertson, S., Rana, S. and Brussoni, M. (2010) "Road Traffic Injury Risk in Disadvantaged Communities: Evaluation of the Neighbourhood Road Safety Initiative", Road Safety Web Publication No.19 (Department for Transport, London).

Christie, N., Ward, H., Kimberlee, R., Towner, E., & Slaney, J. (2007) "Understanding high traffic injury risks for children in low socioeconomic areas: a qualitative study of parents' views", *Injury Prevention*, 13 (6), pp. 394-397.

Green, J., Steinbach, R., Datta, J., Edwards, P., (2010) "Cycling in London: A study of social and cultural factors in transport mode choice", LSHTM, London.

Hamer, M. & Chida, Y. (2008) "Active commuting and cardiovascular risk: A meta-analytic review", *Prev. Med.* 46 (1), pp. 9–13.

Huy, C., Becker, S., Gomolinsky, U., Klein, T., Thiel, A. (2008) "Health, medical risk factors, and bicycle use in everyday life in the over-50 population", *J. Aging. Phys. Act.* 16 (4), pp. 454–464.

Matthews, C., Jurj, A., Shu, X., et al. (2007) "Influence of exercise, walking, cycling, and overall non-exercise physical activity on mortality in Chinese women", *Am. J. Epidemiol.* 165 (12), pp. 1343–1350.

Mosquera, J., Parra, D. C., Gomez, L., Sarmiento, O., Schmid, T., & Jacoby, E. (2012) "An Inside Look at Active Transportation in Bogotá: A Qualitative Study", *Journal of Physical Activity & Health*, 9(6), p. 776-785.

Naci, H., Chisholm, D., & Baker, T. D. (2009) "Distribution of road traffic deaths by road user group: a global comparison", *Injury Prevention*, 15(1), pp. 55-59.

Nantulya, V. M., & Reich, M. R. (2002) "The neglected epidemic: road traffic injuries in developing countries. *BMJ: British Medical Journal*, 324(7346), pp. 1139.

Nantulya, V. M., & Reich, M. R. (2003) "Equity dimensions of road traffic injuries in low-and middle-income countries", *Injury Control and Safety Promotion*, 10(1-2), pp. 13-20.

Ogilvie, D., Egan, M., Hamilton, V., Petticrew, M. (2004) "Promoting walking and cycling as an alternative to using cars: systematic review", *Br. Med. J.*, 329, pp. 763.

Söderlund, N., & Zwi, A. B. (1995) "Traffic-related mortality in industrialized and less developed countries", *Bulletin of the World Health Organization*, 73(2), pp. 175.

WHO, (2015) *Death on the Roads*, App based on the WHO Global Status Report on Road Safety, http://www.who.int/violence_injury_prevention/road_traffic/death-on-the-roads/en/#speed/urban

Environmental impact of transport

Banister, David, S. Watson, and C. Wood (1997) "Sustainable cities: transport, energy, and urban form", *Environment and Planning B: planning and design* 24.1, pp. 125-143.

Bose, R.K. (1996) "Energy demand and environmental implications in urban transport – Case of Delhi", *Atmospheric Environment*, Vol. 30, Issue 3, pp. 403-412.

Dimitriou, H. (2006) *Urban Mobility and Sustainability in Asia and the Power of Context*, China Planning Network 3rd Annual Conference, Beijing.

Schafer, A. (2011) "The future of energy for urban transport", in H. Dimitriou and R. Gakenheimer (eds) *Urban Transport in the Developing World: A handbook of policy and practice*, Edward Elgar Publishers: Northampton, MA, USA, pp. 113-136.

Sperling, D., & Salon, D. (2002) "Transportation in developing countries: An overview of greenhouse gas reduction strategies", University of California Transportation Center.

Swilling, M. (2006) "Sustainability and infrastructure planning in South Africa: A Cape Town case study", *Environment and Urbanization*, Vol. 18, No. 1, pp. 23-50.

Swilling, M. (2011) "Reconceptualising urbanism, ecology and networked infrastructures", *Social Dynamics*, 37(1), pp. 78-95.

Session 4: The fallacy of travel choice

This session will examine transport accessibility and mobility from the perspective of the social position of transport users (class, gender, ethnicity, race, age, sexuality). Taking an intersectional view of social relations, this session will explore differential spatial, social and economic access to activities in the city, and the freedom of mobility in the public space transport channels and hubs, which go to make up a life of quality and well-being.

Participants will work in pairs, each focusing on a particular social identity – keeping in mind the relational character of social identity and its intersection with other social identities. Each pair will have 20 minutes to present and should address the following:

- the underlying assumptions (Implicit or explicit) about the social group in transport planning
- the empirical reality of the travel patterns of the social group – use examples from the local context

- the travel needs of each social group
- 3 planning strategies that would address the needs of the social group

Readings

Avineri, Erel (2012) "On the use and potential of behavioural economics from the perspective of transport and climate change", *Journal of Transport Geography*, 24, pp. 512-521.

Levy, C. (2013) "Travel choice reframed: "deep distribution" and gender in urban transport", *Environment & Urbanization*, Vol. 25, No.1, pp. 47-63.

Levy, C. (2009) "Gender justice in a diversity approach to development? The challenges for Development Planning", *International Development Planning Review*, Vol. 31, No. 4, pp. i– ix.

Venter, C., Vokolkova, V. and Michalek, J. (2007) "Gender, residential location and household travel: empirical findings from low-income urban settlements in Durban, South Africa", *Transport Reviews* Vol. 27, No 6, pp. 653–677.

Transport and class

Astrop, A., Palmer, C. & Maunder, D. (1996, October) "The urban travel behaviour and constraints of low income households and females in Pune, India", *National Conference on Women's Travel Issues, Baltimore, Maryland*.

Bostock, L. (2001) "Pathways of disadvantage? Walking as a mode of transport among low-income mothers", *Health & Social Care in the Community*, 9(1), pp. 11-8.

Clifton, K. J. (2003, August) "Examining travel choices of low-income populations: issues, methods, and new approaches", *10th International Conference on Travel Behaviour Research* pp. 10-15.

Giuliano, G. (2005) "Low Income, Public Transit, and Mobility", *Transportation Research Record: Journal of the Transportation Research Board*, 1927, pp. 63-70.

Srinivasan, Sumeeta and Peter Rogers (2005) "Travel behaviour of low-income residents: studying two contrasting locations in the city of Chennai, India", *Journal of Transport Geography*, Vol 13 (3), pp. 265–274.

Ureta, S. (2008) "To move or not to move? Social exclusion, accessibility and daily mobility among the low-income population in Santiago, Chile", *Mobilities*,3(2), pp. 269-289.

Transport and gender

ADB, (2014) Rapid Assessment of Sexual Harassment in Public Transport and Connected Spaces in Tbilisi - Final Report. Available at: <http://www.adb.org/sites/default/files/project-document/155172/44067-012-tacr-20.pdf>

Anand, A. and Tiwari, G. (2006) "A gendered perspective of the shelter–transport–livelihood link: the case of poor women in Delhi", *Transport Reviews*, Vol. 26, No 1, pp. 63–80.

Cattan, Nadine (2008) "Gendering Mobility: Insights into the Construction of Spatial Concepts", in Tanu Priya Uteng and Tim Cresswell (editors), *Gendered Mobilities*, Ashgate Publishing, pp. 83-97.

Cresswell, T. and Uteng, T.P. (2008) "Gendered mobilities: towards a holistic understanding", in Tanu Priya Uteng and Tim Cresswell (editors), *Gendered Mobilities*, Ashgate Publishing, pp 1–12.

Law, R. (1999) "Beyond 'women and transport': towards new geographies of gender and daily mobility", *Progress in Human Geography*, Vol. 23, No. 4; pp. 567-588.

Levy, C. (2015) "Routes to the just city: towards gender equality in transport planning", in Moser (ed) *Gender, Asset Accumulation and Just Cities: Pathways to Just Cities*, Routledge, Ch. 8.

Levy, C., (2013b) "Transport, Diversity and the Socially Just City: The Significance of Gender Relations", in: J.D. Davila (ed), *Urban Mobility and Poverty: Lessons from Medellín and Soacha, Colombia*, UCL & Universidad Nacional de Colombia, pp. 23-29.

Salon, D. and Gulyani, S. (2010) "Mobility, poverty, and gender: 'travel choices' of slum residents in Nairobi, Kenya", *Transport Reviews* Vol. 30, No. 5, pp. 641–657.

Tran, H.A. and Schlyter, A. (2010) "Gender and class in urban transport: the cases of Xian and Hanoi", *Environment and Urbanization* Vol. 22, No. 1, April, pp. 139–155.

World Bank (2010) *Gender and Transport in MENA: Studies from West Bank Gaza and Yemen*, Knowledge and Learning, Quick Notes Series.

World Bank (2010) "Mainstreaming Gender in Road Transport: Operational Guidance for World Bank Staff," *Transport Papers*, TP-28, Transport Sector Board.

Transport and age

Alsnihi, R. & Hensher, D. A. (2003) "The mobility and accessibility expectations of seniors in an aging population", *Transportation Research Part A: Policy and Practice*, 37(10), pp. 903-916.

Benwell, M.C. (2009) "Challenging Minority World Privilege: Children's outdoor mobilities in post-apartheid South Africa", *Mobilities*, Vol.4, No 1, pp. 77-101.

Gómez, L. F., Parra, D. C., Buchner, D., Brownson, R. C., Sarmiento, O. L., Pinzón, J. D., ... & Lobelo, F. (2010) "Built environment attributes and walking patterns among the elderly population in Bogotá", *American Journal of Preventive Medicine*, 38(6), pp. 592-599.

Hallman, K.K., Kenworthy, N.J., Diers, J., Nick Swan, N. and Devnarain, B. (2015) "The shrinking world of girls at puberty: Violence and gender-divergent access to the public sphere among adolescents in South Africa", *Global Public Health*, Vol. 10, No. 3, pp. 279–295.

Ipingbemi, O. (2010) "Travel characteristics and mobility constraints of the elderly in Ibadan, Nigeria", *Journal of Transport Geography*, 18(2), pp. 285-291.

Metz, D. (2000) "Mobility of older people and their quality of life", *Transport policy*, 7(2), pp. 149-152.

Metz, D. (2003) "Transport policy for an ageing population", *Transport Reviews*, 23(4), pp. 375-386.

Murray, L. (2009) "Making the journey to school: The gendered and generational aspects of risk in constructing everyday mobility", *Health, Risk & Society*, Vol. 11, No. 5, pp. 471–486.

O'Brien, M., Jones, D., Sloan, D. and Rustin, M. (2000) "Children's independent spatial mobility in the urban public realm", *Childhood*, Vol. 7(3), pp. 257-277.

Porter, G., Hampshire, K., Abaneb, A., Robsonc, E., Munthali, A., Mashiri, M. and Tanle, A. (2010) "Moving young lives: Mobility, immobility and inter-generational tensions in urban Africa", *Geoforum* 41, pp. 796–804.

Rosenbloom, S. (2001) "Sustainability and automobility among the elderly: An international assessment", *Transportation*, 28(4), pp. 375-408.

Ross, N.J. (2007) "My Journey to School ...': Foregrounding the Meaning of School Journeys and Children's Engagements and Interactions in their Everyday Localities", *Children's Geographies*, Vol. 5, No. 4, pp. 373–391.

Schmöcker, J. D., Quddus, M., Noland, R., & Bell, M. (2005) "Estimating trip generation of elderly and disabled people: analysis of London data", *Transportation Research Record: Journal of the Transportation Research Board*, (1924), pp. 9-18.

Skelton, T. (2013) "Young People's Urban Im/Mobilities: Relationality and Identity Formation", *Urban Studies*, 50(3), pp. 467–483.

Transport and disability

Casas, I. (2007) "Social exclusion and the disabled: An accessibility approach", *The Professional Geographer*, 59(4), pp. 463-477.

Chakwizira, J., Nhemachena, C., Dube, S. & Maponya, G. (2010) "Rural travel and disability in Leroro and Moremela villages, South Africa", paper presented at the International Conference on Mobility and Transport for the Elderly and Disabled People.
<http://researchspace.csir.co.za/dspace/handle/10204/4716>

Mackett, R. L., Achuthan, K., & Titheridge, H. (2008) "AMELIA: A tool to make transport policies more socially inclusive", *Transport Policy*, 15(6), pp. 372-378.

Mackett, R. L., Achuthan, K., & Titheridge, H. (2008) "AMELIA: making streets more accessible for people with mobility difficulties", *Urban Design International*, 13(2), pp. 81-89.

Madre, J. L., Axhausen, K. W., & Brög, W. (2007) "Immobility in travel diary surveys", *Transportation*, 34(1), pp. 107-128.

Marston, J. R., Golledge, R. G. & Costanzo, C. M. (1997) "Investigating travel behavior of nondriving blind and vision impaired people: The role of public transit", *The Professional Geographer*, 49(2), pp. 235-245.

Schmöcker, J. D., Quddus, M., Noland, R. & Bell, M. (2005) "Estimating trip generation of elderly and disabled people: analysis of London data", *Transportation Research Record: Journal of the Transportation Research Board*, (1924), pp. 9-18.

Yau, M. K. S., McKercher, B., & Packer, T. L. (2004) "Traveling with a disability: More than an access issue", *Annals of Tourism Research*, 31(4), pp. 946-960.

Part II: Critical Perspectives on Urban Transport Planning and Collective Action

Part II of the module will examine different methods and instruments used by transport planning, critically examining their implications for transport equity.

Session 5: Reviewing the methodological repertoire of transport planning and alternative approaches

This session will undertake a critical review of the traditional transport planning process, and a selection of the key tools used by transport planners. This includes an exploration of the assessment of accessibility, the standard four-step transport model and its data collection challenges, and the use of cost benefit analysis (CBA) and EIA in urban transport.

The second part of the session will introduce qualitative methodologies and have group exercises to put them in practice.

Readings

Banister, D. (2002) "The limitation of transport planning" in *Transport planning*. Taylor & Francis.

Bates, J. (2000) "History of demand modelling" in Hensher, David A., and K. J. Button, *Handbook of transport modelling*, Vol. 1, pp. 11-33.

Cervero, R. B. (2013) "Linking urban transport and land use in developing countries", *Journal of Transport and Land Use*, 6(1), pp. 7-24.

Dimitriou, H. T. (1990) "The Urban Transport Planning Process: Its Evolution and Application to Third World Cities" In *Transport Planning for Third World Cities*, pp. 144-183.

Johnston, R. A. (2004) "The Urban Transportation Planning Process", in Hanson, Susan, and Genevieve Giuliano, eds. *The geography of urban transportation*, Guilford Press.

Assessing accessibility

Bocarejo J. P. and Oviedo Hernandez, D.R. (2012) "Transport accessibility and social inequities: a tool for identification of mobility needs and evaluation of transport investments", *Journal of Transport Geography*, Vol. 24, pp. 142–154.

Van Wee, B. (2016). Accessible accessibility research challenges. *Journal of transport geography*, 51, 9-16.

Curtis, C. (2008) "Planning for sustainable accessibility: The implementation challenge", *Transport Policy*, Volume 15, Issue 2, pp. 104-112.

Geurs, K., Zondag, B., de Jong, G.. and de Bok, M., (2010) "Accessibility appraisal of land-use/transport policy strategies: More than just adding up travel-time savings", *Transportation Research Part D: Transport and Environment*, Volume 15, Issue 7, pp. 382-393.

Gutiérrez, J. (2009) "Transport and Accessibility", in *International Encyclopedia of Human Geography*, edited by Rob Kitchin and Nigel Thrift, Oxford: Elsevier, pp. 410-417.

Páez, A., Scott, D.M. and Morency, C. (2012) "Measuring accessibility: positive and normative implementations of various accessibility indicators," *Journal of Transport Geography*, Volume 25, November 2012, pp. 141-153.

Preston, J. and Rajé, F. (2007) "Accessibility, mobility and transport-related social exclusion", *Journal of Transport Geography*, Volume 15, Issue 3, pp. 151-160.

Neutens, T. (2015) "Accessibility, equity and health care: review and research directions for transport geographers", *Journal of Transport Geography*, 43, pp. 14-27.

Modelling and data collection on trip generation, trip distribution and travel need

Hunt, J. D., & Simmonds, D. C. (1993) "Theory and application of an integrated land use and transport modelling framework", *Environment and Planning B*, 20, pp. 221-221.

Hunt, J. D., Kriger, D. S., & Miller, E. J. (2005) "Current operational urban land-use–transport modelling frameworks: A review", *Transport Reviews*, 25(3), pp. 329-376.

Ortúzar, J, and Willumsen, J. (2011) "Introduction" in *Modelling transport*, John Wiley & Sons.

Stopher, P. R., & Greaves, S. P. (2007) "Household travel surveys: Where are we going?" *Transportation Research Part A: Policy and Practice*, 41(5), pp. 367-381.

Walker, J (2006) "Opening up the black box: Enriching behavioural models of spatial and travel choices", *Journal of Transport Geography*, 14, pp. 396–398.

Zhang, L., Southworth, F., Xiong, C., & Sonnenberg, A. (2012) "Methodological options and data sources for the development of long-distance passenger travel demand models: a comprehensive review", *Transport Reviews*, 32(4), pp. 399-433.

Cost benefit Analysis and EIA in transport planning

Buchanan, C., Crowther, G. (1963) Traffic in towns: a study of the long term problems of traffic in urban areas: reports of the Steering Group and Working Group apagesointed by the Minister of Transport. Technical report.

Hall, P. (2004) The Buchanan report: 40 years on. Proceedings of the ICE-Transport, 157(1), pp. 7-14.

Litman, T. (2003) *Transportation cost and benefit analysis: techniques, estimates and implications*, Victoria Transport Policy Institute, Canada. <http://www.vtpi.org/tca/>

Mackie, P., & Preston, J. (1998) "Twenty-one sources of error and bias in transport project appraisal", *Transport policy*, 5(1), pp. 1-7.

Replogle, M. (2011) "Environmental Evaluation in Urban Transport", in Dimitriou, H. T., & Gakenheimer, R. (Eds.) *Urban transport in the developing world: a handbook of policy and practice*, Edward Elgar Publishing.

Session 6: Transit oriented development (TOD) and socio-environmentally just cities

This session will explore the opportunities and constraints of transport oriented development and the quest to intensify mixed-use development in different parts of the city. This includes the application of land value capture and other redistributive mechanisms, the use of design of public space in relation to transport hubs and corridors, and the promotion of new forms of public transport like BRT.

Readings

Cervero, R., Ferrell, C. & Murphy, S. (2002) "Transit-oriented development and joint development in the United States: A literature review", TCRP research results digest, (52).

Hasan, A. (2006) *Livelihood Substitution: The Case of the Lyari Expressway, Karachi*: Ushba International Publishing.

Renne, J. L. (2009) "From transit-adjacent to transit-oriented development", *Local Environment*, 14(1), pp. 1-15.

Brand, P. and Dávila, J. D. (2013) "Metrocables and 'social urbanism': Two complementary strategies." In: J.D. Dávila. (ed) *Urban Mobility and Poverty: Lessons from Medellín and Soacha, Colombia*, London: DPU-UCL and Universidad Nacional de Colombia, pp. 46-54.

Brand, P., and Dávila, J. D. (2011) "Mobility innovation at the urban margins", *City*, Vol. 15, No. 6, pp. 647-661.

Cervero, R. & Kang, C. D. (2011) "Bus rapid transit impacts on land uses and land values in Seoul, Korea", *Transport Policy*, 18(1), pp. 102-116.

Currie, G. (2005, July). Strengths and weakness of bus in relation to transit oriented development. In Transit Oriented Development-Making it Hapagesen Conference, Perth, Western Australia, July.

Gilbert, A. (2008) "Bus rapid transit: Is TransMilenio a miracle cure?" *Transport Reviews*, 28(4), pp. 439-467.

Hensher, D. A. & Golob, T. F. (2008) "Bus rapid transit systems: a comparative assessment", *Transportation*, 35(4), 501-518.

Lindau, L. A., Hidalgo, D. & Facchini, D. (2010) "Curitiba, the cradle of bus rapid transit", *Built Environment*, 36(3), pp. 274-282.

Mejía-Dugand, S., Hjelm, O., Baas, L., & Ríos, R. A. (2013) "Lessons from the spread of bus rapid transit in Latin America", *Journal of Cleaner Production*, 50, pp. 82-90.

Rodríguez, D., & Targa, F. (2004) "Value of accessibility to Bogota's bus rapid transit system", *Transport Reviews*, 24(5), pp. 587-610.

Stienen, A. (2009) "Urban technology, conflict education, and disputed space", *Journal of Urban Technology*, Vol. 16, No. 2-3, pp. 109-142.

Sotomayor, L. (2013) "Medellin's Integral Urban Projects: What is the Potential for Encouraging Socio-Spatial Justice?" Paper presented at the *Joint AESOP-ACSP Conference 'Planning for Resilient Cities and Regions'*, University College Dublin 15-19 July.

Suzuki, H., Cervero, R., & Iuchi, K. (2013) *Transforming cities with transit: Transit and land-use integration for sustainable urban development*. World Bank Publications.

Session 7: How smart are smart cities?

This session will examine the trend towards smart cities and the implication for transport equity.

Readings

Neirotti, P., De Marco, A., Cagliano, A. C., Mangano, G., & Scorrano, F. (2014) "Current trends in Smart City initiatives: Some stylised facts", *Cities*, 38, pp. 25-36.

Banister, D. & Hickman, R. (2013) "Transport futures: Thinking the unthinkable", *Transport Policy*, 29, pp. 283-293.

Deakin, E. (2001) "Sustainable development and sustainable transportation: strategies for economic prosperity, environmental quality, and equity", Working paper 2001-03, University of California at Berkeley, Institute of Urban and Regional Development.

Grant-Muller, S. & Usher, M. (2014) "Intelligent Transport Systems: The propensity for environmental and economic benefits", *Technological Forecasting and Social Change*, 82, pp. 149-166.

Kenworthy, J. R. (2006) "The eco-city: ten key transport and planning dimensions for sustainable city development", *Environment and Urbanization*, 18(1), pp. 67-85.

Marchau, V., Walker, W., & van Duin, R. (2008) "An adaptive approach to implementing innovative urban transport solutions", *Transport Policy*, 15(6), pp. 405-412.

Nam, T., & Pardo, T. A. (2011, September) Smart city as urban innovation: Focusing on management, policy, and context. In Proceedings of the 5th International Conference on Theory and Practice of Electronic Governance (pages. 185-194), ACM.

Odendaal, N. (2006) "Towards the digital city in South Africa: issues and constraints", *Journal of Urban Technology*, Routledge, pp. 29-48.

Session 8a: The formal-informal continuum of urban transport provision and use

The first part of the session will examine the linkages between formal and informal transport provision in terms of who is involved in different forms of transport provision, its implications for employment and 'decent work', and the institutional and organisational relations operating in the transport system.

This second part of this session will examine the linkages between formal and informal transport provision in terms of its implications for transport users. This will include an examination of affordability and safety, and the institutional challenges for planning and managing the formal-informal continuum of transport provision in the city.

Readings

Cervero, R. & Golub, A. (2007) "Informal transport: A global perspective", *Transport Policy*, 14(6), pp. 445-457.

Golub, A., Balassiano, R., Araújo, A. & Ferreira, E. (2009) "Regulation of the informal transport sector in Rio de Janeiro, Brazil: welfare impacts and policy analysis", *Transportation*, 36(5), pp. 601-616.

Aworemi, J.R. et. al (2008) "Impact of socioeconomic characteristics on formal and informal public transport demands in Kwara state, Nigeria", *Africa Journal of Business Management*, Vol. 2, No 4., pp. 72-76.

Ardila, A. (2008) "Limitation of competition in and for the public transportation market in developing countries: Lessons from Latin American cities", *Transportation Research Record: Journal of the Transportation Research Board*, 2048(1), pp. 8-15.

Cervero, R. (2000) *Informal transport in the developing world*. UN-HABITAT.

Gakenheimer, R. (1999) "Urban mobility in the developing world". *Transportation Research Part A* 33, pp. 671–689.

Grieco, M., Tuner, J. and Kwakye, E.A. (1995) "Informal public transport and the women trader in Accra, Ghana", *Seventh World Conference on Transport Research*, pp.123-131.

Rizzo, M. (2011) "'Life is War': Informal Transport Workers and Neoliberalism in Tanzania 1998–2009", *Development and Change*, 42(5), pp. 1179-1206.

Session 8b: Project - group presentations

Guzman, L. A., Oviedo, D., & Bocarejo, J. P. (2017). City profile: The Bogotá Metropolitan Area that never was. *Cities*, 60, 202-215.

Skinner, R. (2004). City profile Bogotá. *Cities*, 21(1), 73-81.

Gilbert, A. (2006). Good urban governance: evidence from a model city?. *Bulletin of Latin American Research*, 25(3), 392-419.

Gilbert, A. (2015). Urban governance in the South: How did Bogotá lose its shine?. *Urban Studies*, 52(4), 665-684.

Session 9a: Transport planning, insurgent practice and political participation

This final session focuses on how political constituencies negotiate inclusive governance and the right to the city through transport planning. The first part of the session will explore experiences of political mobilisation around transport planning and infrastructure development. This includes the link between forced evictions, community mobilisation and the development of urban infrastructure to promote the 'competitive city'.

The second part of the session, will explore the constraints and opportunities for political participation in transport planning.

Readings

Burra, Sundar (1999) "Resettlement and Rehabilitation of the Urban Poor: The Story of Kanjur Marg" DPU Working Paper No 99, DPU, UCL.

Patel, S., d'Cruz, C. and Burra, S., (2002) "Beyond evictions in a global city: people- managed settlement in Mumbai", *Environment and Urbanization*, Vol. 14, No. 1, April, pp. 159–172.

Bickerstaff, K. and Walker, G. (2005) "Shared Visions, Unholy Alliances: Power, Governance and Deliberative Processes in Local Transport Planning", *Urban Studies*, Vol. 42, No. 12, pp. 2123–2144.

Bickerstaff, K., Tolley, R. and Walker, G. (2002) "Transport planning and participation: the rhetoric and realities of public involvement", *Journal of Transport Geography*, 10, pp. 61–73.

Booth, Chris and Tim Richardson (2001) "Placing the public in integrated transport planning", *Transport Policy*, 8, pp. 141-149.

Jahn Hanson, C. (2006) "Urban transport, the environment and deliberative governance: the role of interdependence and trust", *Journal of Environmental Policy and Planning*, Vol.8, No.2, pp.159-179.

Gil, A., Calado, H. and Bentz, J. (2011) Public participation in municipal transport planning processes – the case of the sustainable mobility plan of Ponta Delgada, Azores, Portugal *Journal of Transport Geography*, 19, pp. 1309–1319.

Hodgson, F.C and Turner, J (2003) "Participation not consumption: the need for new participatory practices to address transport and social exclusion", *Transport Policy*, 10, pp. 265-272.

Session 9b: Project – group presentations
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Guzman, L. A., Oviedo, D., & Bocarejo, J. P. (2017). City profile: The Bogotá Metropolitan Area that never was. *Cities*, 60, 202-215.

Skinner, R. (2004). City profile Bogotá. *Cities*, 21(1), 73-81.

Gilbert, A. (2006). Good urban governance: evidence from a model city?. *Bulletin of Latin American Research*, 25(3), 392-419.

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Appendix 1 Student presentations

Part I: Positions between theory and practice

Session 1: Transport, development and the reproduction of inequality in cities
Lecture and discussion

Session 2: Mapping approaches to inequality in urban transport planning
Student presentations – groups of 2 focusing as follows:

<i>Transport and social exclusion:</i>	1.....
	2.....
<i>Transport disadvantage and poverty</i>	3.....
	4.....
<i>Transport and the right to the city</i>	5.....
	6.....
<i>Transport and capabilities/well-being</i>	7.....
	8.....

Session 3: Environmental justice and transport systems

<i>Transport sustainability</i>	9.....
	10.....
<i>Health impacts of transport</i>	11.....
	12.....
<i>Environmental impacts of transport</i>	13.....
	14.....
<i>Transport and class</i>	15.....
	16.....

Session 4: The fallacy of travel choice

<i>Transport and gender</i>	17.....
	18.....
<i>Transport and age</i>	19.....
	20.....
<i>Transport and disability</i>	21.....
	22.....
<i>Assessing accessibility</i>	23.....
	24.....
	25.....

Part II: Confronting theory with practice

Session 5: Reviewing the methodological repertoire of transport planning
Lecture and discussion

Session 6: Transit oriented development (TOD) and socio-environmentally just cities
Lecture and discussion

Session 7: How smart are smart cities?
Lecture and discussion

Session 8a: The formal-informal continuum of urban transport provision and use
Lecture and discussion

Session 8b: Presentation of group work

Session 9: Transport planning, insurgent practice and political participation
Lecture and discussion

Session 9b: Presentation of group work