# SOL PRICE SCHOOL OF PUBLIC POLICY UNIVERSITY OF SOUTHERN CALIFORNIA

#### PPD 634 SYLLABUS

**PPD 634:** Institutional and Policy Issues in Transportation 4 units. Fall 2017

#### **COURSE DESCRIPTION**

Instructor:Professor Marlon BoarnetOffice:RGL 301-CTime:Monday 2:00 – 5:20 PMPhone:213-740-3696Place:RGL 219Email:boarnet@usc.eduOffice hours:Monday, 11 AM - Noon, except Sept. 25 and Oct. 9, and by appointment

**Purpose and Objectives:** Transportation is changing rapidly. That makes understanding the history, context, market forces, and institutions in transportation policy more, not less, important. The purpose of this course is to provide the student with an introduction to the nature and history of transportation problems and policy issues. *The goal is to understand transportation problems and how they might be solved.* The focus of the course is urban transportation, and US policy issues are emphasized. Many if not virtually all of these lessons apply to international contexts.

**Cross-listed Course:** This course is cross-listed as CE 634. It is the gateway course for the MPL Transportation and Infrastructure Planning specialization, a core course for the Certificate in Transportation Systems, and an elective course for the MSCE-Transportation. Students in all Price and civil engineering masters programs who are considering a career in transportation are encouraged to take this course.

**Background:** Transportation is critical to the functioning of our economy and our own daily mobility. Governments around the world invest in airports, railroads and highways to generate economic growth in an ever more interconnected global economy. Metropolitan areas are the engines of economic growth. In the US, large metropolitan areas – those with 1 million population or more – are home to 60% of the population and 65% of GDP. They serve as international gateways and major global transportation hubs. They account for nearly 90% of the nation's transit passengers, 80% of domestic flight departures, and over 90% of freight shipment origins and destinations by value. Well-functioning streets and highways, transit systems, railroads, airports, ports, and border crossings are critical to the efficient movement of people and goods, and hence urban mobility.

Yet among the developed countries of the world, the US is an exception in many ways. US households own more cars and drive more miles than households in Europe or Canada or Australia. You may be surprised to know that nearly 9 out of every 10 trips people in the U.S. make are in private vehicles, while the share of trips on public transit, nationally, is less than 4

percent, even taking into consideration recent increases in transit use. These national numbers have remained stable for years, even while, in a seeming contradiction, cities in the U.S. and worldwide are increasingly focusing on multi-modal travel.

With the dominance of the automobile comes a long list of environmental and social concerns -- air pollution, job access for inner city youth, pedestrian safety, global climate change – to name just a few. Some problems are highly localized (e.g. walk access to local shops and services), others are global (e.g. world transport energy demand). Responses to these problems reflect many different and often conflicting perspectives. We heavily subsidize public transit to attract people out of their cars, but at the same time make driving cheap and convenient. There is great concern about our deteriorating transport infrastructure and many calls for new investments, yet the U.S. fuel tax was last raised in 1993 and gas tax increases are often a political "non-starter." Underlying these conflicting policy responses are more fundamental questions about the roles of governments and markets.

In order to develop effective solutions, we need to understand the nature of the problem. This course starts with an introduction to travel patterns and demand, and then moves to the relationship between travel and social, economic and spatial trends, and the institutions involved in transportation policy. After that (roughly the first half of the class) we discuss major topics in transportation policy.

**Learning objectives:** This course will teach you three things. You will learn how to:

- 1. **Use empirical evidence** to analyze transportation problems;
- 2. **Incorporate issues of equity, social justice**, and an appreciation of a broad range of perspectives into transportation planning.
- 3. Understand the institutional, historical, and policy context of U.S. transportation planning, including being able to:
  - a. Understand the fundamentals of travel and, at an introductory level, the theories developed to explain travel behavior;
  - b. Summarize the role of government and politics in planning, financing, operating and regulating transportation systems;
  - c. Apply lessons from the history of transportation to contemporary planning and policy issues;
  - d. Understand the nature of selected transportation problems such as energy, environmental impacts, freight transport, labor market access, and the role of information and computing technology;
  - e. Attain familiarity with trends in transportation and their implications for the future.

**Required text:** The required text for this course is:

Giuliano, Genevieve and Susan Hanson, eds. (2017) *The Geography of Urban Transportation*, 4<sup>th</sup> edition. New York: Guilford Press.

**IMPORTANT:** Previous editions are very different, and many of the chapters in the 4<sup>th</sup> edition are not in previous editions. You need to have the 4<sup>th</sup> edition, not earlier editions.

The book is available for purchase at the USC bookstore. In this syllabus and in the class, I will abbreviate *The Geography of Urban Transportation*, 4<sup>th</sup> edition, as GUT4.

Other readings, listed in the syllabus, will be posted to the class Blackboard web page.

Prerequisites: None.

**The importance of the readings:** This is primarily a reading course. You are expected to read all required materials *before* class. Active participation is emphasized. You should be prepared to answer and ask questions on the readings, and participate in class discussions.

### **Assignments:**

Assignment	Due (on class day unless	Percent of
	specified otherwise)	Course
		Grade
Participation in class discussion	All weeks	5%
In-class quizzes (two): There will be two in-class	Weeks 2 and 6, Aug. 28	10%
quizzes, in Weeks 2 and 6, on Chapters 1 and 10,	and Sept. 25, respectively	
respectively, of GUT4. Each quiz will be 5% of the		
total class grade.		
Travel diary, due (completed) week 4, in class:	Week 4, Sept. 11	10%
Bring hard copy of your diary final summary sheets		
to class, or be sure you have access to the electronic		
copy of those final summary sheets in class.		
Short (1.5 page maximum) essay applying data to a	Week 4, Sept. 11	10%
policy question		
Paper topic (thesis sentence and one paragraph	Week 7, Oct. 2	5%
description): You get the full 5% for turning in a		
topic by the Week 7 due date.		
Fuel tax assignment	Week 9, Oct. 16	10%
Facilitator Summary paper (2 and ½ pages max,	Variable	10%
double spaced)		
Facilitator Summary group presentation	Variable	5%
Final paper (10 pages maximum, double spaced)	Dec. 8 (finals week)	35%

**Presentations of Readings (Facilitator Summaries and Group Presentations):** Most class sessions will be divided into two halves. In the first half of class, students will discuss the week's readings. That discussion will be facilitated by a few students who will be chosen to summarize and critique the readings for that week. The second half of class will be devoted to class lectures on the week's topic.

Students will be assigned to summarize readings. I call these student summaries "facilitator summaries." Each week, the students assigned to that week will (1) write individual summaries of the readings, and (2) give a group presentation on their interpretation of the readings at the beginning of the class. A schedule will be developed on the first day of class. Each student will write one summary and participate in one group presentation during one week – the summary and group presentation will be the same week for a student.

Written individual summaries **must not exceed 2 and ½ pages double spaced**, and should be turned in via Blackboard by **9 a.m. on the day of the class**. Group presentations will **not be longer than 15 minutes total**, and each student assigned to the presentation group for that week must speak during the group presentation.

The written summaries must be your individual work and writing, exclusively, even while you will coordinate on your group presentation. The written summaries should include the student's interpretation and critique of the readings, any extensions of the readings that the student wishes to mention, and unresolved issues that are good topics for discussion. **NOTE THAT THESE SUMMARIES SHOULD BE MORE THAN "BOOK REPORTS." THEY MUST ALSO INCLUDE YOUR INTERPRETATION OF THE MATERIAL.** Each student summarizing readings that week will bring a copy of their summary to class, in addition to the submission via Blackboard.

Groups of students writing the summaries are expected to coordinate their presentation in advance of each class session, and to prepare powerpoint and other visual aids as needed. After the group presentation, we will devote time to class discussion of the week's topics. The entire class will be responsible for participating in class discussion, and participation in class discussion will be 5 percent of your course grade.

**Term Paper (Final Paper):** Each student will write a paper, on a transportation topic. The paper will proceed in two steps:

By Oct. 2 (Week 7), students will turn in, via Blackboard, a one paragraph statement of their topic. This must include a one-sentence thesis sentence. Also bring a hard copy of your proposed paper topic to the Week 7 class.

All paper topics must be approved by the instructor.

By Dec. 8 (finals week), students will turn in their final term paper, via Blackboard. Papers cannot exceed 10 pages, maximum, using double spacing and 12-point font if

**font is Times Roman, or similar font size.** The 10 page limit does not include the cover page or the bibliography. The instructor will stop reading the text of the paper at the bottom of p. 10, and will grade accordingly without reading any material beyond p. 10 if papers go over the page limit.

The term paper is a research paper. Students are expected to cite the appropriate literature, including citations to the academic literature. Students are expected to research their topic going well beyond the readings that are in the class syllabus. Your grade will be based on the quality of the research, evidence, and argument, and your understanding of transportation issues, context, institutions, planning, and policy.

Late Assignment Policy: The due dates will be shown on the syllabus or clearly indicated in class assignments. For the written facilitator summaries, those should be turned in via Blackboard before class per the instructions earlier in this syllabus. Exceptions will only be granted in cases of illness (with a health care provider's note) or extraordinary emergencies (again with written documentation of the emergency, including evidence that the event could not have been anticipated in advance.) If you are ill and cannot attend class on the day of a facilitator summary presentation, you can make that up by doing an extra written facilitator summary. (While I want you in class, I don't want you to risk bringing an illness and germs into the class or pushing yourself when you are sick and should be getting well.)

**Ph.D. Students:** Doctoral students are welcome in this class. The class is primarily intended to train future practitioners. Doctoral students will be required to write a longer and more academically-oriented term paper, approximately 20 pages, and all the other course assignments.

**Course Blackboard site:** The required readings, with the exception of the GUT4 book, will be posted on the class Blackboard web page. Assignments and other course material will also be available on the course Blackboard site. Powerpoints that accompany the lectures will be posted on Blackboard. Your grades, and feedback on assignments, will be delivered to you by Blackboard, in most if not all cases. Check Blackboard regularly.

**Attendance:** Attendance is mandatory. Any planned absence requires my approval in advance and a justification. Professional activities, for your job or professional conferences, can justify absences, if kept within reason and if the instructor is informed in advance. If you are ill, let me know by email. The class meets from 2:00 PM to 5: 20 PM. Please arrive on time and stay for the duration of the class. There will be a break approximately mid-way through each class. Please refrain from entering or leaving while class is in session.

**Laptops and cell phones:** You are welcome to bring and use laptops *for class purposes*. In order to reduce the temptation of checking emails, Instagram, Twitter, please download class materials you need and stay offline during class. Phones need to be on silent and in your bag/purse/pocket.

How to get the most out of this class (and make it fun for the rest of us): Here are some suggestions for getting the best value for your time and effort.

- 1. Come to class having read the week's reading assignment and prepared to ask at least two questions on each reading. Actively participate in class discussions and policy debates.
- 2. Be an active participant in group projects and presentations. Your future professional world is all about collaboration and communication.
- 3. Become informed; transportation is all around you.
  - a. Transit ridership is declining in the Los Angeles region, despite enormous investments in new rail transit infrastructure. Why is transit ridership declining? If transit ridership is declining, why are there not enough cars on the Expo Line to service the demand?
  - b. Miles of sidewalks in Los Angeles are no longer passable, but city leaders have been unable to come up with an acceptable way to pay for fixing them. How did this happen? Who should pay to fix the sidewalks?
  - c. CicLAvia is fast becoming a local institution. What is the purpose of CicLAvia? Is it having any impact?
  - d. The California High Speed Rail Authority is requesting additional funding due to escalating costs on the current segment. What is the explanation for these additional costs? What do they imply for the future of the project?
- 4. Become an astute field observer and ask yourself questions about what you observe. Why do some cities provide bike lanes and bike facilities, but others don't? Why are bridges tolled, but freeways usually not?
- 5. Be a courteous class member. Arrive on time, observe breaks, avoid leaving while class is in session, and put away (and mute) all handheld devices.

**USC Disability Services:** Any student requesting accommodations based on a disability is required to register with USC Disability Services and Programs (DSP) each semester (https://dsp.usc.edu/). A letter of verification for approved accommodations can be obtained from DSP. Please deliver that letter to me no later than Week 3 of the semester. DSP is located in GFS 120. The phone number for DSP is (213) 740-0776 and the email address is <a href="mailto:ability@usc.edu">ability@usc.edu</a>. It is the responsibility of the student to register with DSP and to obtain needed documentation from DSP regarding approved accommodations.

Academic Honesty: Students should consult USC's academic honesty guidelines. Some information about academic integrity, not necessarily exhaustive, is here: <a href="http://orientation.usc.edu/wp-content/uploads/2016/05/Academic-Integrity.pdf">http://orientation.usc.edu/wp-content/uploads/2016/05/Academic-Integrity.pdf</a>. Penalties for violations of academic honesty will be as severe as are allowed by USC's guidelines, and typically involve a minimum of a zero grade for the assignment for minor infractions, with larger penalties for more serious cases. Cutting and pasting material from the web is only acceptable if the material is indicated to be a direct quote, with the source attributed. All ideas and information from external sources must be properly attributed to that source.

**Plagiarism** – presenting someone else's ideas as your own, either verbatim or recast in your own words – is a serious academic offense with serious consequences. Please familiarize yourself

with the discussion of plagiarism in *SCampus* in Section 11, *Behavior Violating University Standards* <a href="https://scampus.usc.edu/1100-behavior-violating-university-standards-and-appropriate-sanctions">https://scampus.usc.edu/1100-behavior-violating-university-standards-and-appropriate-sanctions</a>. Other forms of academic dishonesty are equally unacceptable. See additional information in *SCampus* and university policies on scientific misconduct, <a href="http://policy.usc.edu/scientific-misconduct">http://policy.usc.edu/scientific-misconduct</a>.

Non-discrimination, assault, harassment: Discrimination, sexual assault, and harassment are not tolerated by the university. You are encouraged to report any incidents to the *Office of Equity and Diversity* http://equity.usc.edu or to the *Department of Public Safety* http://capsnet.usc.edu/department/department-public-safety/online-forms/contact-us. This is important for the safety of the whole USC community. Another member of the university community – such as a friend, classmate, advisor, or faculty member – can help initiate the report, or can initiate the report on behalf of another person. *The Center for Women and Men* http://www.usc.edu/student-affairs/cwm/ provides 24/7 confidential support, and the sexual assault resource center webpage http://sarc.usc.edu describes reporting options and other resources.

**Support Systems:** A number of USC's schools provide support for students who need help with scholarly writing. Check with your advisor or program staff to find out more. Students whose primary language is not English should check with the *American Language Institute* <a href="http://dornsife.usc.edu/ali">http://dornsife.usc.edu/ali</a>, which sponsors courses and workshops specifically for international graduate students. *The Office of Disability Services and Programs* <a href="http://sait.usc.edu/academicsupport/centerprograms/dsp/home\_index.html">http://sait.usc.edu/academicsupport/centerprograms/dsp/home\_index.html</a> provides certification for students with disabilities and helps arrange the relevant accommodations.

**Class policy in case of emergencies:** If an officially declared emergency makes travel to campus infeasible, *USC Emergency Information* <a href="http://emergency.usc.edu">http://emergency.usc.edu</a> will provide safety and other updates, including ways in which instruction will be continued by means of blackboard, teleconferencing, and other technology.

#### COURSE SCHEDULE

Reminder: Readings are to be completed before each class meeting. Please come to each class with at least two questions or comments on each reading to create a lively and informed class discussion.

#### Week 1, Introduction

Aug. 21

Readings:

GUT4, Chapter 1 by Susan Hanson

## Week 2, Travel Trends and Theory

Aug. 28

Readings:

Adela Santos, N. McGuckin, H. Makamoto, D. Gray, and S. Liss (2011) Summary of Travel Trends: 2009 National Household Travel Survey, Report FHWA-PL-11-022. Washington, D.C.: U.S. Dept. of Transportation, Federal Highway Administration.

Noreen McDonald, (2015), Are Millennials Really the 'Go-Nowhere' Generation? Journal of the Am. Planning Assoc., 81(2), pp. 90-103

Kuhminof, T., D. Zumkeller, and B. Chlond. (2013). Who made peak car, and how? A breakdown of trends over four decades in four countries. Transport Reviews, 33(3), pp. 325-342.

Davis, J. (2017) VMT Hits Nominal High, Approaches all-time per-capita mark, Eno Transportation Weekly, Feb. 20, <a href="https://www.enotrans.org/article/vmt-hits-nominal-high-approaches-time-per-capita-mark/">https://www.enotrans.org/article/vmt-hits-nominal-high-approaches-time-per-capita-mark/</a>.

#### **ASSIGNMENT:**

In-class exam on Chapter 1 of GUT4

### Week 3, Labor Day

Sept. 4

NO CLASS

Work on your travel diary and essay assignment

# Week 4, Urban Form and Transportation

Sept. 11

Readings:

GUT 4, Chapters 3 (by Peter Muller) and 9 (by Genevieve Giuliano and Ajay Agarwal)

#### **ASSIGNMENTS DUE:**

Travel Diary

Essay Assignment, data applied to policy questions

### Week 5, Policy and Historical Context

Sept. 18

Readings:

GUT4, Chapter 6 by Gian-Claudia Sciara and Susan Handy

Marlon Boarnet, 2014, National Transportation Planning, Lessons from the U.S. Interstate Highways, Transport Policy, 31, pp. 73-82

# Week 6, Transportation Finance and Pricing

Sept. 25

Readings:

GUT4, Chapter 10, by Brian Taylor

Marlon Boarnet, 2016, Policy Approaches for California's Transportation Future, working paper of California Central, a USC Villaraigosa Initiative

#### **ASSIGNMENT:**

In-Class Exam on Chapter 10 of GUT4

### ASSIGNMENT DISTRIBUTED (DUE OCT. 16):

Fuel Tax Essay Assignment

#### Week 7, Public Transit

Oct. 2

Readings:

GUT4, Chapter 8, by Lisa Schweitzer

ASSIGNMENT DUE: PAPER TOPIC

# Week 8, Equity and Accessibility

Oct. 9

Readings:

GUT4, Chapter 13, by Evelyn Blumenberg

Evelyn Blumenberg. (2004). En-gendering effective planning: spatial mismatch, low-income women, and transportation policy. *Journal of the American Planning Association*, 70(3), 269-281.

M. Boarnet, G. Giuliano, Y. Hou, and E-J Shin, "First/Last Mile Transit Access as an Equity Planning Issue" *Transportation Research A, Policy and Practice*, forthcoming (published online July, 2017.)

# **Week 9, Alternative Transportation I – Non-Motorized Transportation** Oct. 16

Readings on walking and bicycling:

Noreen McDonald, Is there a gender gap in school travel? An examination of US children and adolescents. Journal of Transport Geography, Jan., 2012, vol. 20, issue 1, pp. 80-86.

Liang Ma and Jennifer Dill, Do People's Perceptions of Neighborhood Bikeability Match "Reality," Journal of Transport and Land Use, 2017, available at <a href="https://jtlu.org/index.php/jtlu/article/view/796">https://jtlu.org/index.php/jtlu/article/view/796</a>.

Ralph Buehler and Jennifer Dill. 2016. Bikeway networks: A review of effects on cycling. Transport Reviews, 36,1: pp. 9-27.

M. Boarnet, K. Joh, W. Siembab, W. Fulton, and M. Nguyen, "Retrofitting the Suburbs to Increase Walking: Evidence from a Land Use – Travel Study," *Urban Studies*, volume 48, issue 1, January 2011, pp. 129-159.

### Readings on Harassment:

Nina Flores, Street Harassment: Old Issue, Ongoing Struggle, New Movement, in Progressive Planning,

http://www.plannersnetwork.org/wp-content/uploads/2014/05/PPM\_Sp2014\_Flores.pdf

Unsafe and Harassed in Public Spaces: A National Street Harassment Report <a href="http://www.stopstreetharassment.org/wp-content/uploads/2012/08/National-Street-Harassment-Report-November-29-20151.pdf">http://www.stopstreetharassment.org/wp-content/uploads/2012/08/National-Street-Harassment-Report-November-29-20151.pdf</a>

Video Links:

Video: 10 Hours of Walking in NYC as a Woman (note: more than 44 million

views): https://www.youtube.com/watch?v=b1XGPvbWn0A&t=17s

NPR critique and follow up to the '10 Hours'

video: http://www.npr.org/sections/codeswitch/2014/11/01/360422087/hollaback-video-

calls-out-catcallers-but-cuts-out-white-men

#### ASSIGNMENT DUE:

Fuel Tax Essay Assignment

# Week 10, Alternative Transportation II: Vehicle Miles Traveled (VMT) Reduction Oct. 23

Possible Guest Lecture (to be announced)

Readings:

Marlon Boarnet and Susan Handy, "White Paper: A Framework for Projecting the Potential Statewide VMT Reduction from State-Level Strategies in California," National Center for Sustainable Transportation, 2017,

 $\underline{https://ncst.ucdavis.edu/wp\text{-}content/uploads/2017/03/State\text{-}Level\text{-}VMT\text{-}Strategies\text{-}White-Paper\_LP\_EB1.pdf}$ 

# Week 11, Freight (and, as needed, material on VMT reduction if not covered during Week 10)

Oct. 30

Readings:

GUT4, Chapter 2 by Laetitia Deblanc and Jean-Paul Rodrigue

# Week 12, Information-Communication Technology (ICT) and Transportation Network Companies (TNCs)

Nov. 6

Readings:

ICT

GUT4, Chapter 4 by Giovanni Circella and Patricia L. Mokhtarian

Market Dynamics in Transportation Network Companies

Justin Fox, Uber isn't going to conquer the world. Bloomberg, June, 2016. <a href="https://www.bloomberg.com/view/articles/2016-06-29/uber-isn-t-going-to-conquer-the-world">https://www.bloomberg.com/view/articles/2016-06-29/uber-isn-t-going-to-conquer-the-world</a>.

Autonomous and Connected Vehicles, Planning

Erick Guerra, When Autonomous Cars Take to the Road, *Planning*, The American Planning Association, May, 2015,

https://www.planning.org/planning/2015/may/autonomouscars.htm.

Autonomous and Connected Vehicles, Labor Market Impacts

Jennifer Miller, "Autonomous Vehicles: Implications for Employment Demand," *The Bridge*, Fall, 2015, The National Academy of Engineering, pp. 5-11, https://www.nae.edu/File.aspx?id=142835.

Sharing and Transportation

Jennifer Dill, Early Insights into Peer-to-Peer Carsharing, <a href="http://trec.pdx.edu/blog/early-insights-peer-peer-carsharing">http://trec.pdx.edu/blog/early-insights-peer-peer-carsharing</a>.

Jennifer Dill, Steven Howland, and Nathan McNeil, <u>A Profile of Peer-to-Peer Carsharing Early Adopters: Owners and Renters</u>, 2016, Transportation Research Board Annual Meeting.

# Week 13, Environmental Impacts of Transportation

Nov. 13

Readings:

GUT4, Chapter 11 by Scott Le Vine and Martin Lee-Gosselin

World Health Organization on 7 million premature pollution deaths http://www.who.int/mediacentre/news/releases/2014/air-pollution/en/

Climate change expected to increase pollution deaths <a href="https://phys.org/news/2017-07-climate-premature-deaths-air-pollution.html">https://phys.org/news/2017-07-climate-premature-deaths-air-pollution.html</a>

Willingness-to-pay for cleaner household air <a href="http://voxdev.org/topic/energy-environment/how-much-people-will-pay-clean-air-evidence-china">http://voxdev.org/topic/energy-environment/how-much-people-will-pay-clean-air-evidence-china</a>

# Week 14, Energy

Nov. 20

Readings:

GUT4, Chapter 12 by David L. Greene

### Week 15, Wrap-Up

Nov. 27

Reading: To be assigned as needed – discussion, conclusion, catch up

TERM PAPER DUE: Dec. 8, 2017

#### ADDITIONAL USEFUL REFERENCES

(not all are in syllabus – below are useful supplements, not required readings)

Agarwal, A., G. Giuliano, and C. Redfearn (2012) "Strangers in our midst: the usefulness of exploring polycentricity," *Annals of Regional Science*, 48(2), 433-450.

Becker et al (2013) "A note on climate change adaptation for seaports: a challenge for global ports, a challenge for global society," *Climate Change*, 120, 683-695.

Black, W. (2010) Sustainable Transportation: Problems and Solutions. New York: Guilford Press.

Button, K. (2005) "Market and government failures in transportation," chapter 2 in K. Button and D. Hensher, eds., *Handbook of Transport Strategy, Policy and Institutions*. Handbooks in Transport, Volume 6, 11-28.

Chakrabarti, S., and G. Giuliano (2015). "Does service reliability determine transit patronage? Insights from the Los Angeles Metro bus system." *Transport Policy*, 42, 12-20.

Chatman, D. G. (2013). "Does TOD need the T? On the importance of factors other than rail access," *Journal of the American Planning Association*, 79(1), 17-31.

Chu, S., and A. Majumdar (2012). "Opportunities and challenges for a sustainable energy future." *Nature*, 488 (7411), 294-303.

Cui, J., J. Dodson, and P. V. Hall (2015). "Planning for Urban Freight Transport: An Overview." *Transport Reviews*, (forthcoming), 1-16.

Dargay, J., D. Gately, M. Sommer (2007) "Vehicle ownership and income growth worldwide 1960-2030," *Energy Journal* 28(4), 143-170.

Dicken, P. (2011). "The global economy," chapter 1 in L. Hoel, G. Giuliano and M. Meyers, eds., *Intermodal Freight Transportation: Moving Freight in a Global Economy*. Washington, DC: Eno Transportation Foundation.

Fagnant, D. J., and K. M. Kockelman (2014). "The travel and environmental implications of shared autonomous vehicles, using agent-based model scenarios," *Transportation Research Part C: Emerging Technologies*, 40, 1-13.

Glaeser, E. (2011). The Triumph of the City. New York: Penguin Press.

Giuliano, G. (2007) "The changing landscape of transportation decision-making," *Transportation Research Record*, 2036, 5-12 (2007 Deen Lectureship).

Giuliano, G. (2011) "Transportation policy: Public transit, settlement patterns and equity in the US," chapter 28 in N. Brooks, K. Donaghy and G. Knaap, eds., *Oxford University Press Handbook of Urban Economics and Planning*. New York: Oxford University Press.

Giuliano, G., S. Chakrabarti, and M. Rhoads (2015). "Using regional archived multi-modal transportation system data for policy analysis: A case study of the LA Metro Expo Line." *Journal of Planning and Education Research* (Forthcoming).

Giuliano, G., and J. Dargay (2006). "Car ownership, travel and land use: a comparison of the US and Great Britain." *Transportation Research Part A: Policy and Practice*, 40(2), 106-124.

Giuliano, G. and L. Dablanc (2013) "Approaches to managing freight in urban areas," White Paper for the conference, City Logistics Research: A Transatlantic Perspective, Washington DC. Available from the authors.

Giuliano, G. and S. Hanson (2016) *The Geography of Urban Transportation*, 4<sup>th</sup> edition. New York: Guilford Press, forthcoming.

Holland, S., J. Hughes, C. Knittel, and N. Parker (2015). "Some inconvenient truths about climate change policy: the distributional impacts of transportation policies," *The Review of Economics and Statistics*, 97(5), 1052-1069.

Kuhnimhof, T., D. Zumkeller, and B. Chlond (2013). Who made peak car, and how? A breakdown of trends over four decades in four countries. *Transport Reviews*, 33(3), 325-342.

Lawrence, W (2015). "Bad roads, good roads," chapter 2 in R. van der Ree, D. Smith and C. Grilo, eds, *Handbook of Road Ecology*. Chichester, UK: Wiley and Sons

Leone, R. (1999). "Technology-forcing public policies and the automobile," chapter 10 in Gomez-Ibanez, J., W. Tye and C. Winsston, eds, *Essays in Transportation Economics and Policy*. Washington DC: Brookings Institution.

Lens, B. and C. Nobis (2007) "The changing allocation of activities in space and time by the use of ICT – 'Fragmentation' as a new concept and empirical results," *Transportation Research A*, 41, 190-204.

Levinson, D. (2010). "Equity effects of road pricing: A review." *Transport Reviews*, 30(1), 33-57.

Litman, T. (2015). "Autonomous vehicle implementation predictions: implications for transport planning," presented at 2015 Transportation Research Board Annual Meeting, Paper 15-3326.

Manville, M., and B. Cummins (2015). "Why do voters support public transportation? Public choices and private behavior." *Transportation*, 42(2), 303-332.

Marshall, P. (2015). "The sharing economy," Sage businessresearcher, August 2015.

Martens, K., A. Golub, and G. Robinson. (2012). "A justice-theoretic approach to the distribution of transportation benefits: Implications for transportation planning practice in the United States." *Transportation research part A: policy and practice*, 46(4), 684-695.

Martin, E. and S. Shaheen (2014). "Evaluating public transit modal shift dynamics in response to bikesharing: a tale of two U.S. cities," *Journal of Transport Geography 41*, 315-324.

McDonald, N. C. (2015). "Are Millennials Really the "Go-Nowhere" Generation?". *Journal of the American Planning Association*, 81(2), 90-103.

McNutt, B. and D. Rodgers (2004) "Lessons learned from 15 years of alternative fuels experience – 1988 to 2003," chapter 12 in D. Sperling and J. Cannon, eds., *The Hydrogen Energy Transition*. Oxford, UK: Elsevier Academic Press, 165-180.

Millard-Ball, A (2012). "The limits to planning: causal impacts of city climate action plans," *Journal of Planning Education and Research 33(1)*, 5-19.

Mote, J. and Y. Whitestone (2011) "The social context of informal commuting: Slugs, strangers and structuration," *Transportation Research A*, 45, 258-268.

Puentes, R. and R. Prince (2005) "Fueling transportation finance: A primer on the gas tax," chapter 3 in B. Katz and R. Puentes, eds., *Taking the High Road: A Metropolitan Agenda for Transportation Reform.* Washington, DC: Brookings Institution, 45-76.

Pendall, R., E. Blumenberg, and C. Dawkins (2016). "What if cities combined car-based solutions with transit to improve access to opportunity?," *The Urban Institute, Metropolitan Housing and Communities Policy Center*.

Puga, D. (2010). "The Magnitude and Causes of Agglomeration Economies." *Journal of Regional Science*, 50(1), 203-219.

RPA and VREF (2016). Why goods movement matters: strategies for moving goods in metropolitan areas, June 2016. New York: Regional Plan Association and Volvo Research and Education Foundation (2016). Available at <a href="http://www.rpa.org/publication/why-goods-movement-matters">http://www.rpa.org/publication/why-goods-movement-matters</a>.

Santos, A., N. McGuckin, H. Makamoto, D. Gray, S. Liss (2011) *Summary of Travel Trends:* 2009 *National Household Transportation Survey*. Report FHWA-PL-11-022. Washington DC: US Department of Transportation, Federal Highway Administration.

Scheiner, J. and C. Holz-Rau (2013) "A comprehensive study of life course, cohort and period

effects on changes in travel behavior," *Transportation Research A*, 47, 167-181.

Schuetz, J., G. Giuliano, and E. J. Shin (2016). "Does zoning help or hinder transit-oriented (re)development?," *METRANS Transportation Center* draft paper, August 2016.

Schweitzer, L., and A. Valenzuela. (2004). "Environmental injustice and transportation: the claims and the evidence," *Journal of Planning Literature*, 18(4), 383-398.

Shen, Q. (2015). "Transportation Planning" In *International Encyclopedia of the Social & Behavioral Sciences*, 2nd ed., by James D. Wright, Elsevier, and Oxford, eds., 616-622.

Small, K. (2012) "Energy policies for passenger motor vehicles," *Transportation Research A*, 46, 874-889.

Smerk, G. (1991) *The Federal Role in Urban Mass Transportation*. Bloomington, IN: Indiana University Press.

TRB (2013). "Critical issues in transportation," Washington, D.C.: Transportation Research Board. Available online at http://onlinepubs.trb.org/Onlinepubs/general/criticalissues13.pdf.

TRB (2016). Between public and private mobility: Examining the rise of technology-enabled transportation services. Washington, D.C.: Transportation Research Board. Available online at http://www.trb.org/Main/Blurbs/173511.aspx.

Thompson, G., J. Brown and T. Bhattacharya (2012). "What really matters for increasing transit ridership," *Urban Studies* 49(15), 3327-3345.

Van der Ree, R. D. Smith, and C. Grilo (2015). "The ecological effects of linear infrastructure and traffic: challenges and opportunities of rapid global growth," chapter 1 in R. van der Ree, D. Smith, and C. Grilo, eds., *Handbook of Road Ecology*, Chichester, UK: Wiley and Sons. Available for online viewing via USC Library.

Wachs, M. (2005) "Improving efficiency and equity in transportation finance," chapter 4 in B. Katz and R. Puentes, eds., *Taking the High Road: A Metropolitan Agenda for Transportation Reform.* Washington, DC: Brookings Institution, 77-100.

Winston, C. (2013). "On the performance of the US transportation system: caution ahead." *Journal of Economic Literature*, 51(3), 773-824.