



PPD 634: Institutional and Policy Issues in Transportation

DRAFT Syllabus

Term: Fall 2015

Instructor: Dr. Sandip Chakrabarti

Time: Monday 2:00 to 5:20 PM

Place: WPH 103

Office hours: Wednesday 2:00 to 4:00 PM, or by appointment
University Gateway, Room 101V
3335 S. Figueroa St., Unit A
Los Angeles, CA 90089-7273

Contact: sandipch@usc.edu

First day of class: August 24, 2015
Last day of class: November 30, 2015

Required text: None
Prerequisites: None

Course overview

Purpose

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. Urban transportation is examined in the context of general economic, social and spatial trends. Particular attention is placed on the public decision making process and how it affects policy choices.

Topics

The following topics will be covered in this course:

- Global and U.S. transportation trends
- Socio-economic and demographic factors influencing travel
- Urban economics and evolution of metropolitan regions
- Transportation policy, decision-making, and politics in the U.S.
- Transportation finance and equity issues
- Environmental impacts, energy, and fuel economy
- Social equity and environmental justice
- Land use – transportation relationships
- Parking
- Transit-oriented developments
- Public transit planning and policy
- Urban freight
- High-speed rail
- Active transportation
- Ridesharing, car-sharing, and autonomous vehicles
- Technology and big-data

Learning objectives

The student will learn:

- The fundamentals of how people travel and the theories developed to explain travel behavior
- How the spatial form of cities has evolved and how transport flows are related to spatial form
- The role of government and politics in planning, financing, operating and regulating transportation systems
- The history of public transportation and its role in contemporary metropolitan areas
- Models for future urban mobility
- The nature of selected specific transportation problems, including energy and environmental impacts, and potential solutions
- How to use empirical evidence to analyze transportation problems in the context of travel behavior, urban form, and public policy

Course plan

This is primarily a reading course. You must read all required materials (maximum of three journal articles, book chapters, policy reports, etc. per class) before class every week. Readings will be available on Blackboard. You must be prepared to answer (and ask) questions and participate in class discussions. Readings marked as optional are really optional, and are intended to offer a comprehensive, deeper understanding of a particular topic or sub-field. Read the optional materials carefully if you are interested, or quickly browse through the abstracts for a general overview, or just skip them. My lecture will cover fundamental theoretical concepts, some of the optional readings, and other information not available in the assigned publications.

The class is organized as a seminar. I want you to be engaged and to talk about (and critique) the assigned readings. Your active participation in discussions and class exercises is mandatory and will determine, in part, your final grade. Remember, however, that your opinions and arguments must always be evidence-based. In general, we will try to keep our personal views to ourselves.

We will debate a lot through the semester. You will be asked, individually or as part of a group, to develop and present arguments for or against specific ideas/hypotheses or planning/policy proposals. You will also present your opinion on specific issues. Topics will be related to class readings. All your opinions and arguments, again, must be evidence-based.

A variety of assignments will give you the opportunity to critically think about and analyze significant transportation planning and policy issues. Some will require field work, some will require collaboration. You will review and critique published work, complete your own travel/activity survey, recommend ways to improve public transit, conduct case studies, perform a critical literature review, and present your research findings.

There are no required text books for this course. All readings will be uploaded on Blackboard.

Attendance

Attendance is mandatory. You cannot miss a class without prior approval. Discuss with me at least two weeks in advance. You must present a strong justification, such as a family crisis that requires you to take care of a relative. I will not grant leave for upcoming appointments, since most appointments can be rescheduled. If there is an unavoidable planned family celebration, such as a wedding, or an academic conference where you are presenting a paper, let me know by Week 2.

You may be unable to attend class due to sudden illness. In that situation, submit a health care provider's note when you can. There may also be an extraordinary emergency. In that case, submit a written documentation of the emergency, including evidence that the event could not have been anticipated in advance.

Being absent without notice and approval will negatively affect your final grade.

You must arrive by 2:00 PM and plan on leaving after 5:20 PM. Being late or leaving early without approval will also negatively affect your final grade. Please do not walk in and out of class. Most urgent jobs can wait. You will get a 10-15 minute break at around 3:30 PM.

Laptops and cell phones

I will allow laptops in class. I understand that some of you prefer reading from and taking notes on the computer. Printing all the reading materials is expensive too. You cannot deny, however, that laptops cause distraction. Most of us cannot resist the temptation to check email, comment on Facebook, tweet, read news, browse through Amazon, and surf the web for other important or random information. Therefore, please download all required readings before class and get offline. If we need to search for something, we will do it together on the big screen. Also, please don't talk or text. Vibration is as annoying as ringtone.

Assignments and due dates

I will provide detailed guidelines for all assignments. We will discuss in class, and instruction sheets will be available on Blackboard. You will get clear instructions on what to do, how to do it, when to submit, and how to turn it in. I will also explain why I assigned a particular task, what you are expected to gain by completing the task, and how the assignment will be graded.

Submit all assignments by the due date/time. Late submissions will not be accepted and will result in zero grade/points. No exceptions, except in case of extraordinary emergencies (with explanation and acceptable proof).

You must actively participate in and contribute to group assignments regardless of your geographical location. Face-to-face interaction is no longer the only method of collaboration. Again, extraordinary emergencies (with explanation and acceptable proof) are exceptions. I will have group members evaluate each other's contribution.

All assignments must be submitted via Blackboard. In addition, you will have to turn in hard copies for some assignments.

Following is a brief overview of the assignments and due dates:

Assignment 1 Critique of reading(s)

This rolling assignment will be handed out on August 24 and is due every week, starting week 2 (i.e. August 31). One-page write-ups must be submitted via Blackboard and hard copies must be submitted at the beginning of class, i.e. 2:00 PM, each week. Ten best write-ups will contribute to the final grade. However, all 12 write-ups ("a" through "l") must be submitted. Failure to submit will result in penalties.

Assignment 2 7-day travel/activity diary

In this assignment, you will conduct your own 7-day travel/activity survey. You will keep record of all your activities and travel choices in a given format. It will be useful to analyze our aggregate travel behavior and compare with data from the National Household Travel Survey.

Handed out: August 31 (in class)
Due: September 13 (midnight)

Assignment 3 Essay: Improving public transit in Los Angeles

You will get to ride public transit as part of this assignment. You will evaluate transit service using your own set of parameters. You will critically identify problems that passengers face and factors that prevent car owners from using transit. You will also recommend practical strategies that may help improve the transit travel environment.

Handed out: October 19 (in class)
Due: November 1 (midnight)

Assignment 4 Term paper

You will conduct a comprehensive critical literature review on a topic of your choice. Your review will address a question that is significant to both transportation planning scholars and practitioners. You will present your findings to the class and write a paper.

Handed out: August 24 (in class)
Topic+abstract due: September 20 (midnight)
Reading list due: October 11 (midnight)
Snack-sized talk: November 30 (in class)
Full paper due: December 6 (midnight)

Mid-term case study: Project analysis

You will explore and critically analyze a specific transportation project. You will get two weeks to conduct the study and write a report. This is a group project.

Handed out: September 21 (in class)
Due: October 4 (midnight)

Final case study: Policy/program analysis

You will explore and critically analyze a specific transportation policy or program. Again, you will get two weeks to complete this group work and submit a report.

Handed out: November 16 (in class)
Due: November 29 (midnight)

Grading

Following are the relative weights (expressed as percent of total) of the assignments, exercises and other requirements:

- Class participation 10
 - Attendance/punctuality 5
 - Engagement 5
- In-class exercises 5
- Assignment 1: Critique of readings 10
- Assignment 2: 7-day travel/activity diary 5
- Assignment 3: Improving public transit in Los Angeles 15
- Assignment 4: Term paper 35
 - Abstract 2
 - Reading list 3
 - Talk 5
 - Paper 25
- Mid-term case study 10
- Final case study 10

Academic integrity

USC is committed to academic integrity. General principles of academic honesty include, for example, the concept of respect for intellectual property of others, the expectation that all work is individual work unless otherwise allowed by the instructor, and the obligations to both protect one's own academic work from misuse as well as to not represent another's work as one's own.

- Learn about the fundamentals of academic integrity at <https://integrity.mit.edu/> and <http://www.usc.edu/student-affairs/SJACS/forms/AcademicIntegrityOverview.pdf>.
- Learn how to avoid plagiarism at <http://isites.harvard.edu/icb/icb.do?keyword=k70847&tabgroupid=icb.tabgroup106849>.
- Refer to SCampus, USC's student conduct code and policies manual, at <https://scampus.usc.edu/>.
- For details on behavior that violates USC's standards and appropriate sanctions see <https://scampus.usc.edu/b/11-00-behavior-violating-university-standards-and-appropriate-sanctions/>.
- For details on USC's academic integrity review process, see <https://scampus.usc.edu/b/13-00-academic-integrity-review/>.

All links accessed on 8/5/15.

Academic integrity sanctions will be followed in this class.

Students with disabilities

Any student requesting academic accommodations based on a disability is required to register with Disability Services and Programs (DSP) each semester. 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 VPD 115 and is open 8:30 AM – 4:30 PM, Monday through Friday. The phone number for DSP is (213) 740-0776 and the website is <http://dsp.usc.edu/> (accessed 8/5/15).

Writing support

Writing is not easy. If you need help, please attend individual sessions and workshops at The Writing Center (<http://dornsife.usc.edu/writingcenter/>). MIT Writing and Communication Center's online resources for writers are useful (<http://cmsw.mit.edu/writing-and-communication-center/resources/writers/>). I recommend you to read *On Writing Well*, a classic by William Zinsser. All links accessed on 8/5/15.

Writing style, formatting, citations, references

Please follow the APA (American Psychological Association) style in all written work. See <http://www.apastyle.org/> for details. View the tutorial on the basics of APA style at <http://www.apastyle.org/learn/tutorials/basics-tutorial.aspx>. Read the sample paper at <http://supp.apa.org/style/PM6E-Corrected-Sample-Papers.pdf>. Also refer to <https://owl.english.purdue.edu/owl/section/2/10/>. All links accessed on 8/5/15.

Homework: Before you attend the first class

- Week 1 (August 24) readings
- Prepare for the class exercise

Week 1 class: August 24, 2015**INTRODUCTION****Course overview | Role of travel | Fundamental concepts of transportation planning****Required readings (2)**

Introduction to urban transportation; Flows of people, goods, and information

- 1) Hanson (forthcoming): Chapter 1 in Giuliano and Hanson (forthcoming)
- 2) Giuliano, Chakrabarti, and Rhoads (2015)

Optional readings

- 1) The interdisciplinary field of transportation planning: Shen (2015)
- 2) Managing congestion: Lindsey and de Palma (2015)

Class exercise*Introduction*

Introduce yourself, and briefly describe the traffic and transportation scenario of a city that you care about and are familiar with. Talk about your experiences as a car user or a public transit rider or a pedestrian/biker. How did you travel for work-related and non-work activities, and what factors governed your travel choices? What, in your opinion, is the biggest problem faced by travelers in your city? Are governments and transportation agencies working towards solving the problem? Do you have a new or a better idea for solving or managing the problem? Plan on talking for about 2 minutes. This activity will not be graded, but will demonstrate your interest in the class and the subject.

You may read the following supplemental materials:

- Rodrigue (2013) and associated page links for a general discussion on urban transport challenges (Refer <https://people.hofstra.edu/geotrans/eng/ch6en/conc6en/ch6c4en.html>; not available on Blackboard)
- Gwilliam (2003) for a discussion on challenges of urban transport in developing countries
- TRB (2013) for critical transportation issues in the U.S. (Refer <http://onlinepubs.trb.org/Onlinepubs/general/criticalissues13.pdf>)

Assignments

I will hand out **Assignments 1 and 4**.

Homework: August 24 – August 31

- Week 2 (August 31) readings
- Assignment 1(a) due at 2:00 PM on August 31

Week 2 class: August 31, 2015**TRENDS****Transportation trends | Socioeconomics-demographics and travel behavior****Required readings (3)**

General/Global trends: Growth in vehicle ownership; Peak car

- 1) Dargay, Gately, and Sommer (2007)
- 2) Kuhnimhof, Zumkeller, and Chlond (2013)

For trends in the U.S. (evidence from national household travel surveys), you may go through the tables/figures in sections 1 through 9 in Santos et al. (2011)

Socioeconomics-demographics and travel behavior; Travel behavior of Millennials

- 3) Pucher and Renne (2003)

McDonald (2015) is recommended but not required

Optional readings

- 1) Past and future of global mobility: Schafer and Victor (1997)
- 2) Determinants of changes in travel mode use: Scheiner and Holz-Rau (2013)
- 3) Immigrants and their travel behavior: Chatman and Klein (2009)

Class exercise

Debate #1

“Walking, biking, and transit use will increase across U.S. metros over the next decade.”

Assignments

I will hand out **Assignment 2, the 7-day travel/activity diary.**

Homework: August 31 – September 14 (2 weeks)

- Conduct your travel survey
- Assignment 2 due by midnight September 13
- Week 4 (September 14) readings
- Assignment 1(b) due at 2:00 PM on September 14

No class on September 7, 2015, due to Labor Day holiday

Week 4 class: September 14, 2015

THE URBAN CONTEXT

Economic fundamentals | Evolution of U.S. metros | Agglomeration and polycentricity

Required readings (3)

Economic fundamentals

- 1) Glaeser and Kohlhase (2004)

Evolution of U.S. metros

- 2) Muller (forthcoming): Chapter 3 in Giuliano and Hanson (forthcoming)

Agglomeration economies and the polycentric city

- 3) Puga (2010)

Agarwal, Giuliano, and Redfean (2012) is recommended but not required

Optional readings

- 1) The economics of cities: Glaeser (2007)
- 2) History of urban economics: Mills, Epple, and Oates (2000)
- 3) The urban spatial structure: Anas, Arnott, and Small (1998)

Class exercise

Debate #2

“Density, and resulting traffic congestion, impedes the economy.”

Homework: September 14 – September 21

- Week 5 (September 21) readings
- Assignment 1(c) due at 2:00 PM on September 21
- Assignment 4 (term paper) topic and abstract due by midnight September 20

Week 5 class: September 21, 2015**THE POLICY CONTEXT****Transportation decision-making in the U.S. | Federal policies | Public and private sectors****Required readings (3)**

Transportation decision-making in the U.S.

- 1) Wachs (2004): Chapter 6 in Hanson and Giuliano (2004)
- 2) Giuliano (2007)

Governments or markets? What about privatization?

- 3) Button (2005)

Winston (2013) is recommended but not required

Summary of contemporary federal transportation acts/policies (optional)

Refer web links. These documents are not available on Blackboard.

- ISTEA: <http://ntl.bts.gov/DOCS/ste.html>
- TEA 21: <https://www.fhwa.dot.gov/tea21/summary.htm>
- SAFETEA-LU: <https://www.fhwa.dot.gov/safetealu/summary.htm>
- MAP 21: <http://www.fhwa.dot.gov/map21/summaryinfo.cfm>

Optional readings

- 1) USDOT (2015): Refer <https://www.planning.dot.gov/documents/GuidetoTransportationDecisionmaking.pdf>.
- 2) History of transportation planning in the U.S.: Weiner (1997)
- 3) Federal active transportation policy: Fields and Cradock (2014)
- 4) Economic perspectives on privatization: Vickers and Yarrow (1991)
- 5) Policy vs. Market: Deen (2003)

Class exercise

Discussion on the 7-day travel/activity diary findings (not graded)

Assignment

Mid-term case study topic handed out. Groups announced.

Homework: September 21 – September 28

- Week 6 (September 28) readings
- Assignment 1(d) due at 2:00 PM on September 28
- Keep conducting the case study

Week 6 class: September 28, 2015**TRANSPORTATION FINANCE AND EQUITY****Past and future of transportation finance | User fees and taxes | Equity issues****Required readings (3)**

Overview: The geography of urban transportation finance

- 1) Taylor (forthcoming) – Chapter 11 in Giuliano and Hanson (forthcoming)

New ways of financing U.S. surface transportation

- 2) Greene (2011)

Road pricing

- 3) Schweitzer and Taylor (2010)

For equity issues in transportation finance and pricing, read Taylor and Norton (2009) - recommended but not required

Recommended additional readings

- 1) NSTIFC (2009) – A new framework for transportation finance: Summary findings and recommendations, pages 1-16 (skim through the document)
- 2) Wachs (2010) – Future of transportation finance (<http://www.rand.org/blog/2010/05/the-future-of-transportation-finance-a-new-generation.html>); not on Blackboard)

Optional readings

- 1) A primer on the gas tax: Puentes and Prince (2005)
- 2) User fees vs. taxes: Beyond the gas tax: Wachs (2007)
- 3) The politics of congestion pricing: King, Manville, and Shoup (2007)
- 4) Equity effects of road pricing: Levinson (2010)
- 5) Equity concerns of road pricing: GAO (2012). See <http://www.gao.gov/products/GAO-12-119>; Not on Blackboard

Homework: September 28 – October 5

- Week 7 (October 5) readings
- Assignment 1(e) due at 2:00 PM on October 5
- Mid-term case study due by midnight October 4

Week 7 class: October 5, 2015**ENVIRONMENT AND ENERGY****Environmental impacts | Energy | Public policy****Required readings (3)***Environmental impacts and policy*

- 1) Le Vine and Lee-Gosselin (forthcoming) – Chapter 12 in Giuliano and Hanson (forthcoming)

Banister et al. (2011) is recommended but not required

Energy and fuel economy

- 2) Greene (forthcoming) – Chapter 13 in Giuliano and Hanson (forthcoming)
- 3) Anderson et al. (2011)

Optional readings

- 1) Review of the transport-climate change literature: Chapman (2007)
- 2) Opportunities and challenges for a sustainable energy future: Chu and Majumdar (2012)
- 3) Lessons learned from 15 years of alternative fuels experience: McNutt and Rodgers (2004)

Class exercise*Viewpoint #1*

Energy futures: What should we do?

Homework: October 5 – October 12

- Week 8 (October 12) readings
- Assignment 1(f) due at 2:00 PM on October 12
- Term paper reading list due by midnight October 11

Week 8 class: October 12, 2015**(IN)EQUITY AND (IN)JUSTICE****Social equity issues | Environmental justice issues | Claims and evidence****Required readings (3)***Social equity issues*

- 1) Blumenberg (forthcoming) – Chapter 14 in Giuliano and Hanson (forthcoming)
- 2) Ahmed, Lu, and Ye (2008)

Environmental justice issues

- 3) Schweitzer and Valenzuela (2004)

Forkenbrock and Schweitzer (1999) is recommended but not required

Optional readings

- 1) Environmental Justice & Transportation: A Citizen's Handbook: Cairns, Greig, and Wachs (2003)
- 2) Environmental Justice as Urban Research: Schweitzer and Stephenson (2007)
- 3) Distribution of transportation benefits: Martens, Golub, and Robinson (2012)
- 4) Environmental justice and hazmat transport: Schweitzer (2006)

Class exercise*Viewpoint #2*

Is democracy a barrier to development?

Homework: October 12 – October 19

- Week 9 (October 19) readings
- Assignment 1(g) due at 2:00 PM on October 19

Week 9 class: October 19, 2015**LAND USE AND TRANSPORTATION 1: Relationships****Land use ↔ transportation****Required readings (3)***Land use impacts of transportation investments*

- 1) Giuliano (forthcoming) – Chapter TBD in Giuliano and Hanson (forthcoming)
- 2) Funderburg et al. (2010)

Land use impacts on travel behavior

- 3) Boarnet (2011)

You may want to read the abstract and Sections 1, 2, and 5 of Handy, Cao, and Mokhtarian (2005)

Optional readings

- 1) Driving and the built environment: TRB (2009)
- 2) Role of land use in travel mode choice: Zhang (2004)
- 3) Smart growth: Handy (2005)
- 4) Comparison of the U.S. and Great Britain: Giuliano and Dargay (2006)

Class exercise*Debate #3*

“The Expo Line will promote transit use and reduce congestion.”

Assignment

I will hand out and explain **Assignment 3**.

Homework: October 19 – October 26

- Week 10 (October 26) readings
- Assignment 1(h) due at 2:00 PM on October 26
- Keep working on Assignment 3

Week 10 class: October 26, 2015**LAND USE AND TRANSPORTATION 2: Special topics****Parking | Transit-oriented development | Strategies to reduce auto use****Required readings (3)***Parking*

- 1) Shoup (1999)
- 2) Pierce and Shoup (2013)

Transit-oriented development

- 3) Chatman (2013)

Houston et al. (2015) is recommended but not required

Optional readings

- 1) Parking, people, and cities: Manville and Shoup (2005)
- 2) Cruising for parking: Shoup (2006)
- 3) Reasons for living in TOD: Lund (2006)
- 4) Property valuations near transit stations: Kay, Noland, and DiPetrillo (2014)

Class exercise*Debate #4*

“People moving in to new housing near the Culver City Expo Line station from relatively less transit-rich neighborhoods will start driving less and using transit and non-motorized modes more than before.”

Homework: October 26 – November 2

- Week 11 (November 2) readings
- Assignment 1(i) due at 2:00 PM on November 2
- Assignment 3 due by midnight November 1

Week 11 class: November 2, 2015**PUBLIC TRANSIT****History and trends | Policy and equity issues | Public support****Required readings (3)***History*

- 1) Smerk (1991) – Chapters 4 and 5

Trends and rider characteristics

For national (U.S.) supply, demand, and performance trends, you may quickly browse through: <http://www.ntdprogram.gov/ntdprogram/pubs/NTST/2013%20NTST%20Storylines.pdf> (on Blackboard as NTD 1), and <http://www.ntdprogram.gov/ntdprogram/pubs/NTST/2013%20NTST%20Appendix.pdf> (on Blackboard as NTD 2)

- 2) Buehler and Pucher (2012)

Policy and equity issues

- 3) Giuliano (2011)

Manville and Cummins (2015) is recommended but not required

Optional readings (on strategies to increase ridership)

- 1) Determinants of ridership: Taylor et al. (2009)
- 2) Service reliability: Chakrabarti and Giuliano (2015)
- 3) Travel time: Thompson, Brown, and Bhattacharya (2012)

Class exercise*Viewpoint #3*

How can we get more car owners to use transit in Los Angeles?

Homework: November 2 – November 9

- Week 12 (November 9) readings
- Assignment 1(j) due at 2:00 PM on November 9

Week 12 class: November 9, 2015**TRUCKS AND TRAINS****Urban freight | High-speed rail | Policy and politics****Required readings (3)***Urban freight*

- 1) Dablanc and Rodrigue (forthcoming) – Chapter 2 in Giuliano and Hanson (forthcoming)

High-speed rail

- 2) Givoni (2006)
- 3) Button (2012)

Alabate and Bel (2012) is recommended but not required

Optional readings

- 1) Planning for urban freight: Cui, Dodson, and Hall (2015)
- 2) High-speed rail facts: Campos and de Rus (2009)
- 3) Politics of the California high-speed rail: Schweitzer and Chakrabarti (2012)

Class exercise*Viewpoint #4*

Does California really need the high-speed rail?

Homework: November 9 – November 16

- Week 13 (November 16) readings
- Assignment 1(k) due at 2:00 PM on November 16

Week 13 class: November 16, 2015**SUSTAINABLE TRANSPORTATION, NEXT GENERATION TRANSPORTATION****Active travel | Ridesharing, car sharing | Autonomous vehicles****Required readings (3)***Active travel*

- 1) Buehler et al. (2011)

Ridesharing

- 2) Chan and Shaheen (2012)

Car sharing

- 3) Shaheen and Cohen (2013)

For a discussion on autonomous vehicles, read Fagnant and Kockelman (2015) – recommended but not required

Optional readings

- 1) Does residential density increase physical activity?: Forsyth et al. (2007)
- 2) The social context of informal commuting: Mote and Whitestone (2011)
- 3) The future of ridesharing: Furuhashi et al. (2013)
- 4) A vision of our transport future: Burns (2013)

Class exercise*Viewpoint #5*

What's our urban transport future?

Assignment

Final case study topic handed out. Groups announced.

Homework: November 16 – November 23

- Week 14 (November 23) readings
- Assignment 1(I) due at 2:00 PM on November 23
- Keep working on the final case study

Week 14 class: November 23, 2015**NEW DATA, NEW OPPORTUNITIES****ICT | Big data | Implications for planning and policy****Required readings (3)**

- 1) Aguilera, Guillot, and Rallet (2012)
- 2) Arribas-Bel (2014)
- 3) Tao et al. (2014)

Louail et al. (2015) is recommended but not required

Optional readings

- 1) Travel demand estimation using big data: Toole et al. (2015)
- 2) When is big data big enough?: Vij and Shankari (2015)
- 3) Policy analysis using big data: Giuliano, Chakrabarti, and Rhoads (2015, forthcoming)
- 4) Regional monitoring using big data: Giuliano, Rhoads, and Chakrabarti (2014)

Class lecture

“Archived real-time transportation system data for planning”

Guest lecture

TBD

Homework: November 23 – November 30

- Week 15 (November 30) readings
- Final case study due by midnight November 29

Week 15 class: November 30, 2015

STUDENT PRESENTATIONS, COURSE CONCLUSION

Required readings (3)

“Mood and Mode”

- 1) Mokhtarian and Salomon (2001)
- 2) Morris and Guerra (2014)
- 3) De Vos et al. (2013)

Finals

Submit Term Paper (final version) by midnight December 6, 2015.

Bibliography

Week 1

- 1) Giuliano, G., & Hanson, S. (Eds.). *The Geography of Urban Transportation, 4th edition*. New York: Guilford Press, forthcoming.
- 2) Giuliano, G., Chakrabarti, S., & Rhoads, M. (2015). *Transportation Geography*, In International Encyclopedia of the Social & Behavioral Sciences (Second Edition), edited by James D. Wright, Elsevier, Oxford, Pages 607-615.
- 3) Gwilliam, K. (2003). Urban transport in developing countries. *Transport Reviews*, 23(2), 197-216.
- 4) Lindsey, R., & de Palma, A. (2015). *Transportation, Supply, and Congestion*, In International Encyclopedia of the Social & Behavioral Sciences (Second Edition), edited by James D. Wright, Elsevier, Oxford, Pages 629-634.
- 5) Shen, Q. (2015). *Transportation Planning*, In International Encyclopedia of the Social & Behavioral Sciences (Second Edition), edited by James D. Wright, Elsevier, Oxford, Pages 616-622.

Week 2

- 1) Chatman, D. G., & Klein, N. (2009). Immigrants and Travel Demand in the United States Implications for Transportation Policy and Future Research. *Public Works Management & Policy*, 13(4), 312-327.
- 2) Dargay, J., Gately, D., & Sommer, M. (2007). Vehicle ownership and income growth, worldwide: 1960-2030. *The Energy Journal*, 143-170.
- 3) Kuhnimhof, T., Zumkeller, D., & Chlond, B. (2013). Who made peak car, and how? A breakdown of trends over four decades in four countries. *Transport Reviews*, 33(3), 325-342.
- 4) McDonald, N. C. (2015). Are Millennials Really the “Go-Nowhere” Generation?. *Journal of the American Planning Association*, DOI: 10.1080/01944363.2015.1057196.
- 5) OECD/ITF (2012). *Trends in the Transport Sector 2012*. OECD Publishing, Paris/ITF, Paris.
DOI: http://dx.doi.org/10.1787/trend_transp-2012-en.
- 6) Pucher, J., & Renne, J. L. (2003). Socioeconomics of urban travel: evidence from the 2001 NHTS. *Transportation Quarterly*, 57(3), 49-77.
- 7) Santos, A., McGuckin, N., Nakamoto, H. Y., Gray, D., & Liss, S. (2011). *Summary of travel trends: 2009 national household travel survey* (No. FHWA-PL-II-022).
- 8) Schafer, A., & Victor, D. (1997). The past and future of global mobility. *SCIENTIFIC AMERICAN-AMERICAN EDITION*, 277, 58-63.
- 9) Scheiner, J., & Holz-Rau, C. (2013). A comprehensive study of life course, cohort, and period effects on changes in travel mode use. *Transportation Research Part A: Policy and Practice*, 47, 167-181.

Week 4

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