

**RUTGERS UNIVERSITY****BLOUSTEIN SCHOOL OF PLANNING AND PUBLIC POLICY****970:555  
Urban Transport Policy****Prof. John Pucher  
Autumn 2010  
Wednesdays, 10:00-12:30****COURSE DESCRIPTION**

This course provides an overview of travel trends, problems, alternative solutions, and government policies in urban transport, focusing mainly on the United States. We survey the characteristics of the present urban transport system and examine historical developments in both transport and land use. We analyze several specific problems of the present car-dominated system: energy use, equity, congestion, air pollution, safety, and urban sprawl. We also examine problems of public transportation, particularly the fiscal crisis of transit and the need to improve service quality. We evaluate the relative effectiveness and cost of various proposed solutions: e.g. traffic management, business regulation, pricing and taxation policies, improved technology, increased transit service, widespread adoption of carpooling and vanpooling, consumer regulation, traffic calming, better facilities for pedestrians and cyclists, and limited investment in highway infrastructure. The political/institutional context of urban transportation (legislation, subsidies, regulations, and planning guidelines) has changed dramatically in recent years. The evolution of that political/institutional context will be presented, along with discussion of its consequences for the future of transportation planning.

Most of the course will focus on the United States since my spring semester seminar (970:557) is a comparative analysis of urban transportation that examines Canada, Europe, and the rest of the world. Nevertheless, comparisons will be made to other countries throughout the semester, since international analysis of urban transport is my main research area. This course will deal almost exclusively with urban transport in developed countries, while my spring seminar includes developing countries (as well as developed OECD countries) as part of a comprehensive international comparison.

The overall course materials listed below have been chosen deliberately to be as non-technical as possible so that they will be comprehensible and interesting even to those students without any background in transportation.

**There are various written assignments and oral presentations required for the course:**

- **major term paper** that will be presented at the end of the semester.
- **joint powerpoint presentation of special topic** together with other students, in groups of about 5 students
- **book review** of one of the books listed below for consideration, to be discussed in class during a week with an appropriate topic. Joint presentations will be made by groups of students choosing the same book.

**TERM PAPER:** The term paper may focus on urban transportation in a particular neighborhood, city or metropolitan region (or specific local project), or it may contrast urban transportation systems, problems, solutions, and institutional arrangements in different cities or in different countries. OR you can focus on a specific type of technology, policy issue, or problem instead of a particular city or country: such as BRT or LRT, or congestion pricing, or HOV lanes, or integration of cycling with public transit, or whatever. Do whatever interests you! **Your papers should be specific, focused, and not general overviews of broad topics.** In many cases, students have worked together on joint or coordinated term papers and presentations, but such joint papers must be more extensive (or intensive) and require more effort than a normal paper. Students will be asked to make a Powerpoint presentation of the key aspects and main findings of their term papers at the end of the semester. The term paper is NOT something that you postpone until 2 weeks before the end of the semester and then rush to throw something together in the last two weeks. It should reflect truly a full semester's worth of thought, research, and effort. Each student will also be presenting her/his paper during the last two weeks of the course. The PPT handouts (slide printouts) will also be turned in, along with the written paper. *Due to the very large size of the class this year (30 students), it seems likely that we will be forced to do group papers and group presentations. We will discuss this during the first class meeting.*

**BOOK REVIEW:** Every student will be expected to read ONE of the 5 books listed below, write a 3-4 page (double-spaced) review of the book. There will be group presentations of the book reviews since several students will be reading each books, but each student must write his/her own independent review. I hope that students will disagree with each other about the books they are reading so that there is some real discussion. Indeed, I will explicitly ask students to take different points of view on the books they are reviewing, at least in the oral discussion. The total length of the presentation will be about half an hour for the entire group presentation of the review. Students will be expected to coordinate their discussions of the same book. I really hope that students will have different opinions about the same book and even sharply disagree about their assessment of the book. First, there should be a very BRIEF summary of what the book is about and what its main thesis and conclusions are. Then you should critique the book, examining its pros and cons, strengths and weaknesses. After your half hour discussion of the book, everyone in the class should have a good idea about what the book is about. I have NOT ordered ANY of the 5 books via the RU Bookstore, so you will each have to order them directly via Internet sites like Amazon.com, or Barnesandnoble.com. If there is another book you would

prefer reviewing, which is not listed below, please discuss that with me, as it might be possible to read and review books other than those listed below:

- 1) Norton, P. 2008. *Fighting Traffic: The Dawn of the Motor Age in the American City*. MIT Press. (~\$30)
  - 2) Levine, J. 2005. *Zoned-out: Regulation, Markets, and Choices in Transportation and Metropolitan Land Use*. Resources for the Future. (~\$27)
  - 3) Mapes, J. 2009. *Pedaling Revolution: How Cyclists are Changing American Cities*. Oregon State University Publishing. (~\$20)
  - 4) Sperling, D. 2009. *Two Billion Cars: Driving Toward Sustainability*. Oxford University Press. (~\$25)
  - 5) Mees, P. 2010. *Transport for Suburbia: Beyond the Automobile Age*. Earthscan Publication Ltd. (~\$50)
- (Important: Use the WIKI tool on the Sakai website to sign up for the book you want to review. Just list your name under the title of the book you choose.)**

**JOINT POWERPOINT PRESENTATION:** As noted above, students will be asked to form groups and make joint presentations on some specific subtopic within a week's general topic. These joint powerpoint presentations would be by groups of 4-5 students. Students will be asked to turn in the PPT slide printouts (handouts), but no paper is required. Some possible topics might include:

- For the week on land use and urban development: transit-oriented development in New Jersey (case study of NJ Transit Villages Program)
- For the week on energy: the potential of electric cars (latest status of cost, performance, challenges)
- For the week on the environment: issue of peak oil (What is the real extent of petroleum reserves? How does the cost of accessing them play a role?)
- For the week on congestion: comparative case studies of congestion pricing in Singapore, London, Stockholm, Oslo, and New York City (plan)
- For the week on parking policy: analysis of the new parking control program being introduced in San Francisco
- For the week on safety: Safe Routes to School, improved car design, issue of bike helmets, crosswalk enforcement, complete streets, safer intersection design, or simply a presentation of traffic safety trends in USA and how USA compares to other OECD countries in overall traffic safety
- For the week on public health: trends in obesity and relationship to car dependence; childhood obesity as special problem related to lack of active transport; active travel within buildings (stairs instead of elevators), etc.
- For the weeks on cycling and walking: bike sharing programs, cycle tracks, car-free

zones, traffic calming, tax benefits for cyclists, etc.

- For the weeks on public transport: BRT and LRT systems in North America

***(Important: Use the WIKI tool on the Sakai website to sign up for your PPT group presentation, listing your names under the topic and indicating the specific focus of your joint talk.)***

Students will be expected to participate actively in class discussion and should plan to do the required readings in advance of class meetings in order to be able to participate effectively. Your contributions to class discussions will influence the final course grade. It is absolutely essential that, at a minimum, students read the starred entries on this list. The material in these books and articles comprises the core of information for the course and will form the basis for class discussions. Other readings are recommended but not crucial; students should use their own discretion, depending on interest, topic, and time available. Those readings are listed primarily for your reference in case you are interested in pursuing several of the topics areas in more depth. The choice is up to you.

**Wherever possible, I am indicating which readings can be directly accessed via the internet, but all readings will be posted as PDF files in the Resources section of the Sakai website for this course, as well as on the common:knight S-drive of the Bloustein School's main computer server, in the folder 555-F10 Urban Transport. So please check on Sakai and the S-Drive for postings.**

**Almost all journal articles are freely accessible via the RU Library's internet site for electronic journals.**

**[http://www.libraries.rutgers.edu/rul/rr\\_gateway/ejournals/ejournals.shtml](http://www.libraries.rutgers.edu/rul/rr_gateway/ejournals/ejournals.shtml)**

**You will also be able to access most of my own publications and some PPT talks directly from my Bloustein School webpage (under the tabs for publications and presentations):**

**<http://www.policy.rutgers.edu/faculty/pucher>**

**We will be using two textbooks for the course, and they are both available for purchase at the Rutgers University Bookstore in downtown New Brunswick, or you can purchase them online at Amazon.com, Barnesandnoble.com, or any other online bookseller:**

**\*Susan Hanson and Gen Giuliano, eds. The Geography of Urban Transportation (New York: Guilford Publications, 3<sup>rd</sup> Edition, 2004), an excellent book of readings, although it is now a bit out of date. This text is used in urban transport planning and policy courses throughout the USA, including UC Berkeley, UCLA, MIT, Univ of North Carolina, so it has become a standard text for this sort of course.**

**\*Anthony Downs, Still Stuck in Traffic (Brookings, 2004), devoted mainly to traffic congestion issues, but with very good, insightful analysis of travel trends and transport**

policies in general. A superb book, with many useful discussions and analysis of US travel behavior, land use and transport policies, trends, etc. This book should be carefully read in its entirety by everyone.

There are two other books that might be interesting and useful for some students, especially those of you interested in international comparisons, and I use them extensively in my spring course on international transport policy, and both of them are posted as PDF files on the Sakai website:

David Banister, Unsustainable Transport: City Transport in the 21<sup>st</sup> Century. London, UK: Routledge Press, 2005. This book is posted as a PDF file on the S drive, common:knight, in the folder called 555fall08, within the subfolder called Intro and Overview Mobility and Sustainability, stored as the file called Unsustainable Transport, a PDF file. It is also posted on the Sakai website for this course.

Pucher and Lefevre, Urban Transport Crisis in Europe and North America (London, England: Macmillan Press, 1996), comparative analysis of travel behavior, transport systems and policies in U.S., Canada, and Europe, out of print but on reserve at Alexander Library. ALL chapters have been posted on Sakai and in the class folder.

**IMPORTANT:** Almost all of the journals listed below are available in electronic format via the Rutgers University Libraries website:

[http://www.libraries.rutgers.edu/rul/rr\\_gateway/ejournals/ejournals.shtml](http://www.libraries.rutgers.edu/rul/rr_gateway/ejournals/ejournals.shtml).

**The main transportation journals (E=electronic access via RU library website):**

Access (E) accessible at: <http://www.uctc.net/access/access.asp>

<u>Transportation Research Record (E)</u>	(Library of Science and Medicine, Busch Campus)
<u>Transportation Quarterly</u>	(Alexander Library, College Avenue Campus)
<u>Journal of Transport Economics and Policy (E)</u>	(Alexander Library, College Avenue Campus)
<u>Transportation Research (E) Series A-F</u>	(Library of Science and Medicine, Busch Campus)
<u>Transportation (E)</u>	(Alexander Library, College Ave Campus)

Transport Reviews (E)

(Alexander Library, College Ave Campus)

The Journal of the American Planning Association (E)

To retrieve PDF files of any JAPA article, just go to the libraries homepage <http://www.libraries.rutgers.edu/>, choose "search catalogs" from the left menu, choose IRIS, and type in the title. It comes up with 8-9 locations for JAPA including a link to the ProQuest electronic gateway. There you re-enter the title, and it takes you right to the downloadable pdfs of all issues of JAPA. Almost everyone has had trouble in the past accessing JAPA, but Clint Andrews assures me that this works very well!!

The Journal of Transport Geography (E)

The Journal of Transportation and Statistics (E)

Transport Policy (E)

World Transport Policy and Practice (E) accessible at: [www.ecoplan.org](http://www.ecoplan.org)

For anyone doing a research paper, the first step should usually be a thorough review of these journals for the past 5 or so years to determine how much existing information will be available for use in your paper. The best way to find relevant literature is to check with the free transportation literature search engine of the U.S. Department of Transportation, called **TRIS** (Transportation Research Information Service) which is available on the BTS website: [www.bts.gov](http://www.bts.gov). That website is a wealth of information with oodles of links to other websites as well. The statistical portion of that website is: [www.transtats.bts.gov](http://www.transtats.bts.gov). Or just go to: <http://ntl.bts.gov/index.cfm>, and from there you can reach both **TRIS**, the literature search engine, and **TranStats**, the nationwide statistics on all aspects of transportation.

**There are many publicly accessible websites that provide a wide range of information on almost every aspect of transportation:**

TranWeb from Northwestern University	<a href="http://tran.library.northwestern.edu/">http://tran.library.northwestern.edu/</a>
Transportation Research Information Services	<a href="http://ntlsearch.bts.gov/tris/index.do">http://ntlsearch.bts.gov/tris/index.do</a>
U.S. Department of Transportation (DOT)	<a href="http://www.dot.gov/">http://www.dot.gov/</a>
BTS (Bureau of Transportation Statistics)	<a href="http://www.bts.gov/">http://www.bts.gov/</a>
FTA (Federal Transit Administration)	<a href="http://www.fta.dot.gov/">http://www.fta.dot.gov/</a>
SAFETEA – Site	
	<a href="http://www.fhwa.dot.gov/reauthorization/safetea.htm">http://www.fhwa.dot.gov/reauthorization/safetea.htm</a>
Many links to SAFETA-LU	
	<a href="http://apta.com/government_affairs/safetea_lu/">http://apta.com/government_affairs/safetea_lu/</a>
American Public Transportation Association	<a href="http://www.apta.com/Pages/default.aspx">http://www.apta.com/Pages/default.aspx</a>
Federal Highway Administration	<a href="http://www.fhwa.dot.gov/">http://www.fhwa.dot.gov/</a>

Victoria Transport Policy Institute <http://www.vtpi.org>  
 National Highway Traffic Safety Administration <http://www.nhtsa.dot.gov>  
 CDC Injury Statistics Reporting System  
<http://www.cdc.gov/injury/wisqars/index.html>  
 Brookings Institution <http://www.brookings.edu/metro.aspx>  
 Resources for the Future (RFF) <http://www.rff.org/Transportation.cfm>  
 Transportation and Energy Data Book, DOE <http://cta.ornl.gov/data/index.shtml>  
 National Household Travel Survey) <http://nhts.ornl.gov>  
 EU directorate general transportation website  
[http://ec.europa.eu/transport/index\\_en.html](http://ec.europa.eu/transport/index_en.html)  
 International Transport Forum <http://www.internationaltransportforum.org/>  
 National Emissions Inventory (NEI)  
 Air Pollutant Emission  
<http://www.epa.gov/ttn/chief/trends/index.html#tables>

### **IMPORTANT DATES TO REMEMBER.....**

September 22 Turn in a memo outlining your proposal for a term paper. This can be turned in earlier if you wish to get comments sooner.  
October 20 Turn in outline and bibliography for your term paper.  
December 8 Term paper due.

### **RELATIVE WEIGHT OF YOUR ASSIGNMENTS:**

In calculating your grade at the end of the semester, the assignments will be weighted in the following manner:

1) Book review	15%
2) Joint powerpoint presentation on special topic	25%
3) Overall attendance and class participation	10%
4) Final term paper and PPT presentation	<u>50 %</u>
<b><u>TOTAL</u></b>	<b>100 %</b>

*NOTE: The following reading list may be supplemented some weeks by additional, more current readings on particular topics.*

## **TOPIC OUTLINE AND READINGS**

**All readings are posted in the class folder and on Sakai under Resources, except for readings from the textbooks and website links.** Citations and some web links are provided for your convenience. *Recommended Readings* are suggested for those students wishing to read further in any of these areas of urban transportation.

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### **Week 1: Introduction, Course Overview, Semester Plan, and Brief Discussion of Sustainability and Accessibility**

#### ***Required Readings:***

Paul Tranter, "Speed Kills: The Complex Links between Transport, Lack of Time, and Urban Health," *Journal of Urban Health*, Vol. 87, No. 2, 2010.

Excerpts from various essays by Ivan Illich, Herman Knoflach, and Susan Hanson about the very basic issue of the benefits and costs of mobility, speed, and travel. I emailed these to all students registered in the course, and they are also posted under Week 1 in the Resources section of the Sakai website.

#### ***Recommended Readings:***

David Banister, *Unsustainable Transport*, chs. 1-4 (skim for intro, but will use these chapters in detail for later topics)

David Banister, John Pucher and Martin Lee-Gosselin, "Making Sustainable Transport Politically and Publicly Acceptable: Lessons from the EU, US and Canada"  
Accessible at:

<http://policy.rutgers.edu/faculty/pucher/Acceptability%20EU%20CAN%20USA.pdf>

The World Bank, Sustainable Transport: Priorities for Policy Reform, Washington, D.C. 1996.

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## **Week 2: History of the Development of Urban Transportation System and Their Impact on Urban Form**

### ***Required Readings:***

Peter Muller, "Transportation and Urban Form: Stages in the Spatial Evolution of the American Metropolis" (Hanson and Giuliano, Geography of Urban Transportation, pp. 59-85)

Video shown in class on evolution of public transport systems and land use patterns

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## **Week 3: Recent Trends in Modal Choice, Urban Spatial Patterns, and Their Interaction; Characteristics of the Current Urban Transportation System**

### ***Required Readings:***

Susan Hanson, "Context of Urban Travel: Concepts and Recent Trends," (Hanson and Giuliano, Geography of Urban Transportation, pp. 3-30)

Pisarski, A. 2007. *Commuting in America III: The Third National Report on Commuting Patterns and Trends*. Transportation Research Board, 2007. Short summary.  
 Accessible at: <http://onlinepubs.trb.org/onlinepubs/trnews/trnews247CIAIII.pdf>  
 Podcast accessible at: [http://www.trb.org/news/blurb\\_detail.asp?id=6699](http://www.trb.org/news/blurb_detail.asp?id=6699)

Pucher and Renne, "Socioeconomics of Urban Travel," *Transportation Quarterly*, Summer 2003  
 Accessible at: <http://policy.rutgers.edu/faculty/pucher/TQPuchRenne.pdf>

I am also asking **ALL** of you to visit the BTS website ([www.bts.gov](http://www.bts.gov)) and/or Transtats website ([www.transtats.bts.gov](http://www.transtats.bts.gov)) and just check out the range of *trend statistics* available at those sites: highway use, car ownership, transit use, etc.

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## **Week 4: Land-Use and Urban Development**

- Reviews of the Levine book due this week
- In class debate pro- and anti-sprawl, based on discussion of Ewing vs. Gordon/Richardson articles

### ***Required Readings:***

Giuliano, "Land Use Impacts of Transportation Investments: Highway and Transit," (Hanson and Giuliano, Geography of Urban Transportation, pp. 237-273)

Susan Handy. 2005. Smart growth and the transportation - Land use connection: What does the research tell us?

Susan Handy. 2004. "Toward an Accessibility Framework for Transportation Policy," PPT talk to be shown in class.

Handy, S. 2002. *Accessibility vs. Mobility*.

Accessible at: [http://www.des.ucdavis.edu/faculty/handy/ECMT\\_report.pdf](http://www.des.ucdavis.edu/faculty/handy/ECMT_report.pdf)

Alternative views of sprawl, a two-part discussion (pro and contra) in the winter 1997 issue of the Journal of the American Planning Association:

P. Gordon and H. Richardson. 1997. "Are Compact Cities a Desirable Planning Goal?" *Journal of the American Planning Association*, Winter 1997, pp. 95-106.

R. Ewing, 1997. "Is Los Angeles-Style Sprawl Desirable?" *Journal of the American Planning Association*, Winter 1997, pp. 107-126.

I will ask all students to take a side in this debate and be prepared to defend one view or the other. So you must come to class prepared to actually debate!

### ***Recommended Readings:***

Newman and Kenworthy, Sustainability and Cities: Overcome Automobile Dependence  
Chapter 6 – "Promoting Sustainable Urban Change"  
Chapter 7 – "Ethics, Spirituality, and Community in the Sustainable City"

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### **Weeks 5 and 6: Transportation, Energy, and the Environment**

- Reviews of the Sperling book due this week
- Group presentations by students on the electric car or peak oil?

### ***Required Readings:***

David Greene, "Transportation and Energy" (Hanson and Giuliano, Geography of Urban Transportation, pp. 274-293)

Christine Bae, "Transportation and the Environment," (Hanson and Giuliano, Geography of Urban Transportation, pp. 356-381)

Newman and Kenworthy, Sustainability and Cities: Overcome Automobile Dependence Chapter 3 – “The Pattern of Automobile Dependence and Global Cities”

Peter Newman and Jeffrey Kenworthy, "Gasoline Consumption and Cities: A Comparison of U.S. Cities with a Global Survey " Journal of the American Planning Association, Winter 1989, pp. 24-36;

Reply by Gordon and Richardson, JAPA, Summer 1989, pp. 342-345.

I am asking you to visit the BTS website ([www.bts.gov](http://www.bts.gov)) again, and check out the whole range of energy and environmental stats available in the National Transportation Statistics of that website, and the even more comprehensive website of the US Dept of Energy: [www.cta.ornl.gov/data](http://www.cta.ornl.gov/data) (for the 2002 edition of the Transportation Energy Data Book). See also the EPA’s website on national trends in transportation emissions and ambient air quality in US cities:

<http://www.epa.gov/ttn/chief/trends/trends98/>

<http://www.epa.gov/ttn/chief/trends/index.html#tables>

Also just take a look at the Litman website on the environment:

[http://www.vtppi.org/0\\_sust.htm](http://www.vtppi.org/0_sust.htm)

### **Week 6: Transportation Safety**

- We will probably only need half a week for this, since we also cover safety in the ped/bike section, but it gives us leeway if we fall behind in the schedule.
- Students might wish to do a presentation showing overall trends in traffic safety, both in USA and around the world. See the two websites below for NHTSA and IRTAD statistics.

### ***Required Readings:***

Again, I am asking you to check out the BTS website ([www.bts.gov](http://www.bts.gov)), National Transportation Statistics, section on SAFETY, and ALSO to check out the US DOT’s website of the National Highway Safety Traffic Administration: <http://www.nhtsa.dot.gov>. In both cases, please examine the range of statistics available and the trends in traffic deaths and injuries by mode of transport. On the NHTSA website, you’ll need to pull down statistics one category at a time in their Accident Report section, mode by mode, I think.

### ***Recommended Readings:***

Richard A. Retting, Susan A. Ferguson, and Anne T. McCartt, “A Review of Evidence-Based

Traffic Engineering Measures to Reduce Pedestrian-Motor Vehicle Crashes,” Amer. J of Public Health, September 2003, Vol. 93, No. 9

IMPORTANT: The very best international website for traffic deaths, injury data, safety rates, for different countries is from the International Road Traffic Accident Database:

<http://www.bast.de/htdocs/fachthemen/irtad/english/englisch.html>

Everyone should carefully examine this website for differences in traffic safety rates, trends, etc. among countries and for different modes of travel.

### **Week 7: Congestion and Parking**

- Review of Norton book due this week
- Group presentations by students on congestion pricing in Singapore, London, Stockholm, Oslo, and New York

#### ***Required Readings:***

Anthony Downs, Still Stuck in Traffic (entire book)

Texas Transportation Institute. 2009. *The 2009 Urban Mobility Report*. TTI.

Accessible at: [http://tti.tamu.edu/documents/mobility\\_report\\_2009\\_wappx.pdf](http://tti.tamu.edu/documents/mobility_report_2009_wappx.pdf)

Everyone should visit the BTS website, National Transportation Statistics, section on congestion and economics costs, and also the Litman website ([www.vtpi.org](http://www.vtpi.org)), which has extensive analysis of congestion costs. You might also visit the Texas Transportation Institute’s website, which has all sorts of publications on congestion. TTI publishes the most widely used estimates on congestion costs for US cities: <http://tti.tamu.edu>.

***Read a couple of the following parking policy articles by Don Shoup, the parking guru of the world:***

- \* Donald Shoup, “Evaluating the Effects of Cashing out Employer-paid Parking: Eight Case Studies,” *Transport Policy*, Vol. 4, No. 4, 1997, pp. 201-216.
- \* Donald Shoup, “The Trouble with Minimum Parking Requirements,” *Transportation Research A*, Vol. 33, 1999, pp. 549-574.

Donald Shoup, “The High Cost of Free Parking,” *Journal of Planning Education and*

*Research*, Vol. 17, No. 1, fall 1997, pp. 3-20.

Donald Shoup, "An Opportunity to Reduce Minimum Parking Requirements," *Journal of the American Planning Association*, 1994, Vol 61, No. 1, pp. 14-28.

***And here are two videos about Don Shoup's views about parking policy:***

Here is a great video of Don Shoup talking about the overall issue of parking during a guest lecture at Yale University: <http://www.youtube.com/watch?v=K8vkbzfz8PU8>

Here is a video from San Francisco (sent to me by Don Shoup) demonstrating the SF plan to implement Don Shoup's ideas about correct parking policy: <http://sfpark.org/>

### **Weeks 8 and 9: Bicycling and Walking**

- Reviews of the Mapes book due this week
- Group presentations by students of ped/bike topics such as bike sharing, bike helmets, cycle tracks, traffic calming of residential neighborhoods, car-free city centers, etc.

### ***Required Readings:***

Pucher, Dill, and Handy, "Infrastructure, Programs and Policies to Increase Bicycling: An International Review," prepared for the Active Living Research Program of the Robert Wood Johnson Foundation, *Preventive Medicine*, Vol. 48, No. 2, February 2010, in press.

Pucher, Komanoff, and Schimek, "Bicycling Renaissance in North America," *Transportation Research*, September 1999, *Transportation Research*, Vol. 33A, Nos. 7/8 (special issue on transport policy in international perspective)

Accessible at: <http://policy.rutgers.edu/faculty/pucher/NAmbIKE.PDF>

Pucher and Dijkstra, "Making Walking and Cycling Safer: Lessons from Europe," *Transportation Quarterly*, summer 2000.

Accessible at:

[http://policy.rutgers.edu/faculty/pucher/MakingWalkingAndCyclingSafer\\_TQ2000.pdf](http://policy.rutgers.edu/faculty/pucher/MakingWalkingAndCyclingSafer_TQ2000.pdf)

Peter Jacobsen, "Safety in Numbers," *Injury Prevention*, 2003.

Pucher and Buehler, "Making Cycling Irresistible: Lessons from the Netherlands, Denmark, and Germany," *Transport Reviews*, July 2008.

Accessible at: <http://policy.rutgers.edu/faculty/pucher/Irresistible.pdf>

IMPORTANT: Check out the freely downloadable videos on cycling on the Streetfilms website:

<http://www.streetfilms.org/>

I especially recommend:

<http://www.streetfilms.org/cycling-copenhagen-through-north-american-eyes/>

<http://www.streetfilms.org/copenhagens-car-free-streets-and-slow-speed-zones/>

<http://www.streetfilms.org/physically-separated-bike-lanes/>

<http://www.streetfilms.org/summer-streets-2008-nyc/>

<http://www.streetfilms.org/ciclovia/>

<http://www.streetfilms.org/portland-celebrating-americas-most-livable-city/>

### ***Recommended Readings:***

Pucher, "Bicycling Boom in Germany: A Revival Engineered by Public Policy," *Transportation Quarterly*, Autumn 1997.

"Copenhagen: City of Cyclists," segment of DVD video from *Contested Streets*, Transportation Alternatives, NYC.

Tolley, ed., *Sustainable Transport*, 2003, about 40 articles on all conceivable aspects of bicycling and walking trends and policies in Europe and North America. For those whose main interest is walking and cycling.

Check out the website of the National Walking and Bicycling Center:

<http://www.bikewalk.org/index.htm>. A huge range of information on walking and cycling issues as well as active living programs.

### **Weeks 10 and 11: Public Transport**

- **Review of Mees book due**
- **Group presentations by students on Light Rail Transit (LRT) and Bus Rapid Transit (BRT)**

### ***Required Readings:***

Pucher, J. 2004, "Public Transportation" (Hanson and Giuliano, *Geography of Urban Transportation*, pp. 199-236)

Ralph Buehler and John Pucher, "Making Public Transport Financially Sustainable," *Transport Policy*, Vol. 19, 2011, forthcoming.

Accessible at: <http://policy.rutgers.edu/faculty/pucher/Sustainable.pdf>

Pucher, J. 2002 "Renaissance of Public Transport in the USA," *Transportation Quarterly*,

Winter

2002.

Accessible at: <http://policy.rutgers.edu/faculty/pucher/TQPDF.pdf>

Brian Taylor, "Geography of Urban Transportation Finance," (Hanson and Giuliano, Geography of Urban Transportation, pp. 294-331)

### **Week 12: Public Health Impacts of Transportation and Land Use**

- **Maybe a student presentation on obesity trends in USA? Recent report by CDC shows yet further increase in obesity levels!!**

#### ***Required Readings:***

*Health, Equitable Transportation Policy: Recommendations and Research* (especially chapters

3 and 4)

Accessible at: [http://www.convergencepartnership.org/atf/cf/%7B245a9b44-6ded-4abd-a392-ae583809e350%7D/HEALTHTRANS\\_FULLBOOK\\_FINAL.PDF](http://www.convergencepartnership.org/atf/cf/%7B245a9b44-6ded-4abd-a392-ae583809e350%7D/HEALTHTRANS_FULLBOOK_FINAL.PDF)

Transportation Research Board. 2005. *Does the Built Environment Influence Physical Activity?*

*Examining the Evidence.* Washington D.C. (Please just skim this, as it is a very long.)

Accessible at: [http://trb.org/news/blurb\\_detail.asp?id=4536](http://trb.org/news/blurb_detail.asp?id=4536)

Basset, D. et al. (2008). "Walking, Cycling, and Obesity Rates in Europe, North America, and Australia." *Journal of Physical Activity and Health*.

Accessible at: <http://policy.rutgers.edu/faculty/pucher/JPAH08.pdf>

John Pucher, and Lewis Dijkstra "Promoting Safe Walking and Cycling to Improve Public Health: Lessons From the Netherlands and Germany," *American Journal of Public Health*, Sept. 2003.

Accessible at: <http://policy.rutgers.edu/faculty/pucher/AJPHfromJacobsen.pdf>

Special September 2003 issue of the **American Journal of Public Health** (vol. 93, no. 9) devoted exclusively to the public health impacts of the physical environment, especially of transport and land use patterns, on public health (available as electronic journal through Rutgers University website). It is entitled: "Health Promoting Community Design." As the title of the issue suggests, all the articles focus on how communities can be designed in order to permit and encourage safe, feasible, and pleasant physical activity as a natural element in our daily lives.

Try to read at least a few of the following articles from this issue:

Robert Cervero and Michael Duncan, "Walking, Bicycling, and Urban Landscapes: Evidence from the San Francisco Bay Area"

Lyson L. Geller, "Smart Growth: A Prescription for Livable Cities"

Reid Ewing, Richard A. Schieber and Charles V. Zegeer, "Urban Sprawl as a Risk Factor in Motor Vehicle Occupant and Pedestrian Fatalities"

Kevin M. Leyden, "Social Capital and the Built Environment: The Importance of Walkable Neighborhoods"

Brian E. Saelens, James F. Sallis, Jennifer B. Black, and Diana Chen, "Neighborhood-Based Differences in Physical Activity"

***Recommended Readings:***

Boarnet, M. and Crane, R. (2001) The influence of land use on travel behavior: specification and estimation strategies, *Transportation Research part A*, 35(9): 823-845.

Frumkin, H. 2002 Viewpoint: Urban sprawl and public health. In: *Public Health Reports*. Volume 117, pp. 201-217.  
Accessible at: <http://www.cdc.gov/healthyplaces/articles/Urban%20Sprawl%20and%20Public%20Health%20-%20PHR.pdf>

Alliance for Biking and Walking. 2010. "Benchmarking Report: Bicycling and Walking in the United States."  
Accessible at:  
<http://www.peoplepoweredmovement.org/site/index.php/site/memberservices/C529>

**ALSO:** See the following two PDF files of articles by Reid Ewing and the Center for Smart Growth on their detailed study of the link between obesity and suburban sprawl called "Sprawl Makes you Fat!":

Ewing, R., et al. (2003) Relationship between urban sprawl and physical activity, obesity, and morbidity. *American Journal of Health Promotion*, 18: 47-57.  
Accessible at: <http://www.smartgrowthamerica.org/report/JournalArticle.pdf>

McCann, Barbara and Ewing, R. (2003) *Measuring the Health Effects of Sprawl*.  
Accessible at: <http://www.smartgrowthamerica.org/report/HealthSprawl8.03.pdf>

**FINALLY, please check out the Center for Disease Prevention and Control's website for**

their detailed data and programs on active living, obesity trends, need for physical exercise, etc: <http://www.cdc.gov/nccdphp/dnpa/obesity/index.htm>,

And the **Robert Wood Johnson Foundation's** website for active living communities: <http://www.rwjf.org/programs/physicalActivity.jsp>.

Both the CDC and RWJF programs emphasize the need to redesign communities, land use, and travel behavior to encourage more physical exercise.

### Week 13: Equity

#### *Required Readings:*

John Pucher and John Renne, "Socioeconomics of Urban Travel," *Transportation Quarterly*.  
Accessible at: <http://nhts.ornl.gov/2001/Documents/Pucher-Renne-TQarticle.pdf>

D. Deka, "Social and Environmental Justice Issues in Transportation," (Hanson and Giuliano, *Geography of Urban Transportation*, pp. 332-355)

#### *Recommended Readings:*

Check out Litman website for useful links and readings:  
[http://www.vtppi.org/0\\_equity.htm](http://www.vtppi.org/0_equity.htm)

### Week 14: Politics and Public Policy: The Changing Institutional Environment of Urban Transportation and Its Impact on Transportation Planning

#### *Required Readings:*

Wachs, "Reflections on the Planning Process," in (Hanson and Giuliano, *Geography of Urban Transportation*, pp. 141-162)

Hansen and Guiliano, "Managing the Auto," in (Hanson and Giuliano, *Geography of Urban Transportation*, pp. 382-404)

David Banister, John Pucher and Martin Lee-Gosselin, "Making Sustainable Transport Politically and Publicly Acceptable: Lessons from the EU, US and Canada."  
Accessible at:  
<http://policy.rutgers.edu/faculty/pucher/Acceptability%20EU%20CAN%20USA.pdf>

David Banister, **Unsustainable Transport**, chs. 1-4.

SAFETEA-LU: Safe, Accountable, Flexible, Efficient Transportation Equity Act, Legacy for Users: MAIN federal transportation legislation for the period 2005-2009, establishing all federal funding and regulations for surface transport in the USA. Please check out the following USDOT website for detailed information about this legislation: <http://www.fhwa.dot.gov/safetealu/>

(You will find several downloadable files here, including the full text of the act, summary information, fact sheets, and funding tables, as well as special reports for each of the main modes of transport. No need to get into all the details, but you should be least familiarize yourselves with this source of info, as it is by far the most important legislation affecting transport in the USA.)

Yet another very extensive source of information on SAFETEA-LU is the website of the American Public Transportation Association, which provides every conceivable detail of the law, especially as it applies to public transport, but also provides direct links to the FHWA and FTA websites for SAFETEA-LU: [http://apta.com/government\\_affairs/safetea\\_lu/](http://apta.com/government_affairs/safetea_lu/)

***Recommended Readings:***

Johnston, “The Urban Transportation Planning Process” (Hanson and Giuliano, Geography of Urban Transportation pp. 115-140)

**\*\*\* TERM PAPER DUE WEDNESDAY, DECEMBER 8, regardless of whether you are presenting Dec. 1, 8, or 15** (Late papers will NOT be accepted, as I absolutely MUST have one week to read the papers before turning in grades.)

**\*\*\*\*\* IN-CLASS PRESENTATIONS OF STUDENT TERM PAPERS ON DECEMBER 1, 8, and 15.**

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**TERM PAPER IN URBAN TRANSPORTATION POLICY ANALYSIS**

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Your most important assignment in the class is the preparation of a major term paper. Choose a topic that really interests you, and feel free to discuss this choice with the instructor before embarking on the paper. Choose a topic that is manageable. It is better to write a thorough paper on a topic that is narrowly defined, than a wide-ranging review that is shallow. There is not a required length for the paper, but it should probably be somewhere between 15-20 pages long.

In addition to discussing the topic with the instructor whenever you need to, please observe the following deadlines:

**September 22**

Turn in brief proposal for paper topic

- October 20** Turn in an outline of the paper, and a preliminary bibliography.
- December 8** Term paper due. Remember that late papers will **NOT** be accepted.
- December 1, 8, and 15** Student presentations of term paper.

Selected Previous Topics:

- Examination of jitney services in New York City, and how they serve the mobility needs of the poor and provide employment as well, as drivers and mechanics
- Impact of light rail transit line (Hudson-Bergen Line) on development along Hudson River shore in Jersey City, Hoboken, and Bayonne
- Tearing down urban freeways: experiences in US cities and potential for more
- Integration of bike and transit on NJ Transit suburban rail lines: current status and potential for improvement
- Overview of traffic calming techniques and their impact on speed and safety
- Potential of hydrogen fuels to increase energy efficiency of cars and reduce CO<sub>2</sub> emissions
- Overview of BRT systems in the USA, and then case study of BRT in one city, looking at costs and benefits, ridership, etc.
- Analysis of the bikeway plan for Westchester County
- The role of auto advertising in distorting American travel behavior
- Urban transportation problems and solutions in San Salvador.
- Comparison of the land-use impacts of rapid transit projects in Stockholm and San Francisco.
- The phenomenon of extremely long commutes to work in U.S., its cause, and how it is becoming more and more usual
- Transportation problems and solutions in Newark.
- History of NYC subway and its impact on urban development patterns.
- History of the Philadelphia transit system and its impact on urban development patterns.
- Analysis of the park-and-ride facility at Interchange #9 of the New Jersey Turnpike.
- History of the Erie-Lackawanna RR and its impact on land use and current problems.
- Pros and cons of Westway Project in Manhattan.
- Potential of the taxi to be a more broadly used mode of urban transportation, especially for the elderly and handicapped.
- Potential of jitney services in urban areas.
- A Marxist/radical analysis of the equity problem in urban transportation.
- Current transit problems in New Jersey and a history of the state government's reaction to them.
- Potential of electric cars.
- Land-use impacts of the Washington, D.C. Metro-rail system and the potential of value capture taxes for financing the costs of rail rapid transit construction.
- Income-redistribution impacts of the new rail rapid transit system in Atlanta.
- Potential of lanes reserved for high-occupancy vehicles to reduce congestion and save energy.

- Potential for distance-based fares on the New York subway.
  - Transportation patterns of working women.
  - Financing the Washington, D.C., Metro.
  - Critique of American transit capital grant programs.
  - Effectiveness of the Rutgers campus bus system.
  - Problem of growing congestion in suburban areas and the potential of traffic management techniques for reducing this congestion.
  - Potential of automated fixed guideway systems in urban areas.
  - Potential of high-speed rail transportation, based on experience in France and Japan.
  - Problem of crime on transit systems.
  - Cost/Benefit analysis of Los Angeles rapid transit system.
  - Potential of bicycling to be fully integrated into urban transportation system as practical transport mode.
  - Analysis of detailed bikeway and bike route plan for Rutgers University and New Brunswick
  - Role of drive-in restaurants, banks, laundries, etc. on transportation.
  - Environmental problems arising from the disposal of used tires, batteries, and autos.
  - The costs and benefits of air bags for auto safety.
  - Technological advances in automotive fuel efficiency: past achievements and future outlook.
  - Transportation themes in the films of Alfred Hitchcock.
  - Past and future of urban passenger ferry systems
  - Various papers on transportation management associations
  - Analysis of problem of transporting hazardous materials
  - Pros and cons of raising speed limit in New Jersey
  - Potential of battery-powered electric cars
  - Analysis of North Jersey Coast Line of NJ Transit
  - Improving pathways and other facilities for bicycle travel
  - Disney World as an example of innovative, non-auto-based urban transportation systems
  - Recent advances in automotive safety and prospects for future improvements
  - Recent developments in light rail transit, cost-benefit analysis, study of where light rail transit would make economic sense, where not; whether light rail transit is more appropriate in developing countries, where funds not available for full-scale metro systems (several different paper topics here)
  - Advances in automotive technology to reduce air pollution emissions, progress since 1970 to 1995, and prospects for continued pollution reductions through technological advances in the future
  - Official EIS and the REAL environmental impacts of the widening of the NJ Turnpike
  - Recent experience with improving ferry service in cities as practical means of urban transport, with special emphasis on NYC
  - Safety impacts of raising the speed limit
- PLUS, literally hundreds of other topics I can't remember now, covering the entire range of issues, all over the world as well as right here in New Jersey**

Whatever topic you choose, it is essential that the paper you write not be simply a regurgitation of class notes and required readings. It should be specific and concrete in its content, and should demonstrate a significant amount of research and thinking on areas omitted, or only briefly covered in class. You can certainly deal with a topic discussed in class, but do not simply review what we already did in class and readings. Do NOT pick a topic so broad that you cannot do justice to it; for example, do not propose a paper on the environmental impacts of transportation.

All professors at Rutgers University are required to include this statement in the syllabi for all courses:

### **Academic integrity**

**Academic honesty and intellectual integrity are fundamental to the process of learning and to evaluating academic performance. This is the responsibility of all members of the university, and students share the responsibility for creating and maintaining an atmosphere of honesty and integrity. If you have any doubt about what constitutes academic integrity, consult <http://teachx.rutgers.edu/integrity/policy.html>**