

URBN PL M250 – Transportation Land Use: Urban Form
Fall 2022
Wednesdays 2:00-4:50 pm

Instructors: Reid Ewing and Ethan Ellis
Office Hours: In-person appointment on Wednesdays, early afternoon (or other times via Zoom)
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Description

Coordination of land use and transportation is one of today's hot topics in urban planning, mainly because other solutions to traffic congestion have proven so ineffective. If we cannot pave our way out of congestion, we must reduce the need for so much vehicular travel, or so the theory goes. This is where coordinated land use and transportation planning comes in.

Objectives

The objective of this course is to make you familiar with current thinking on land use, transportation, and the coordination of the two. This course is based on a training course developed for the National Transit Institute (NTI) and delivered to land use and transportation professionals in 30 metropolitan areas across the U.S. It has also been offered to transportation professionals through the American Planning Association's (APA's) Planners Training Service. It has been taught at Rutgers University, the University of Maryland, and the University of Utah. The greater time available for this course should allow us to do a better job than in the NTI or APA training courses. Students who perform well in this course will be competitive for employment at progressive transportation agencies.

Readings

All readings are electronic. They are either in the course folder, which you can access from remote locations. Or they are downloadable off the web. Readings are to be completed prior to the class period in which they are listed.

Structure of Course

The typical class will start with a 10-minute ungraded quiz, followed by a 10-minute discussion of answers, followed by one-hour lecture by Ewing, followed by a 10 minute break, followed by a 10 minute mini-lecture by a class member on one of the readings, followed by a continuation of the lecture by Ewing, followed by a 15 minute presentation on

the equity reading by Ellis. After teaching this course many times, I have found that it works best with this kind of variety of activities.

Grades

Grades will be based on:

Participation – 25% (attendance)

Assignments – 15%

Final Exam – 30%

Final Paper – 30%

Participation

Attend class. Come prepared to discuss the readings and to ask questions. Asking and answering questions during class, and discussion of readings, will be treated as extra credit.

Quizzes

Short multiple choice and fill-in-the-blank quizzes will be given at the beginning of each class period and will be based on both previous lectures and readings. They will not be part of your grade. Instead, we will discuss the answers in class and about half of the final exam questions will be taken from earlier quizzes.

Assignments

Assignments are done outside class and are due the following week.

Final Exam

The exam consists of short-answer questions on individual topics and one essay question that requires you to integrate material from the various topics covered to date.

Final Paper

As your final project for the course, you will work individually or in small groups on an integrated land and transportation planning paper of your own choice. I may suggest some possibilities during my lectures. Examples of outstanding projects are contained in the course folder.

Paper grades will be based on (1) level of effort, (2) integration of course material into the project, (3) clarity and professionalism of presentation and writing, (4) quality of graphic materials, (5) provision of pertinent background information, (6) adequacy of data and analysis and defensibility of conclusions, (7) concise review and appropriate citation of relevant literature, (8) originality of topic and approach, and (9) general interest level. Remaining within the allotted page limit will also be taken into account.

Proposed Schedule

September 28: Overview of Course/Sprawl vs. Compact Development

Required:

Gordon, P., & Richardson, H. W. (1997). Are Compact Cities a Desirable Planning Goal?. *Journal of the American Planning Association*, 63(1), 95-106.

Ewing, R. (1997). Is Los Angeles-style Sprawl Desirable?. *Journal of the American Planning Association*, 63(1), 107-126.

Recommended:

Heilbrun, J. and McGuire, P.A. (1981). Site Rent, Land-Use Patterns, and the Form of the City, in *Urban Economics and Public Policy*, Third Edition. New York: Saint Martin's Press. 117-152.

Ewing, R., & Hamidi, S. (2015). Compactness versus Sprawl: A Review of Recent Evidence from the United States. *Journal of Planning Literature*, 30(4), 413-432.

Other Readings:

Pendall, R. (1999). Do Land-Use Controls Cause Sprawl?. *Environment and Planning B: Planning and Design*, 26(4), 555-571.

Lewis, P. G., & Baldassare, M. (2010). The Complexity of Public Attitudes toward Compact Development: Survey Evidence from Five States. *Journal of the American Planning Association*, 76(2), 219-237.

Bruegmann, R. (2008). Point: Sprawl and Accessibility. *Journal of Transport and Land Use*, 1(1), 5-11.

Equity:

Adorno, G., Fields, N., Cronley, C., Parekh, R., & Magruder, K. (2018). Ageing in a Low-Density Urban City: Transportation Mobility as a Social Equity Issue. *Ageing & Society*, 38(2), 296-320.

October 5: Beyond Speed

Required:

Proffitt, D. G., Bartholomew, K., Ewing, R., & Miller, H. J. (2019). Accessibility Planning in American Metropolitan Areas: Are We There Yet?. *Urban Studies*, 56(1), 167-192.

Barbour, E., Chatman, D., Doggett, S., Yip, and Santana, M. (2019). SB 743 Implementation: Challenges and Opportunities, Caltrans, pp. i-x, 42-54, and 71-86.

Recommended:

Clifton, K., Ewing, R., Knaap, G. J., & Song, Y. (2008). Quantitative Analysis of Urban Form: A Multidisciplinary Review. *Journal of Urbanism*, 1(1), 17-45.

Shoup, D. (2003). Truth in Transportation Planning. *Journal of Transportation and Statistics*, 6(1), 2003,1-12.

Other Readings:

Hui, N., Saxe, S., Roorda, M., Hess, P., & Miller, E. J. (2018). Measuring the Completeness of Complete Streets. *Transport Reviews*, 38(1), 73-95.
Handy, S. (2020). Is Accessibility an Idea Whose Time Has Finally Come?. *Transportation Research Part D: Transport and Environment*, 83, 102319.

Equity:

Sanchez, T. W., Brenman, M., Ma, J. S., & Stolz, R. H. (2018). *The Right to Transportation: Moving to Equity*. Routledge.

Assignment: Catalogue goals, objectives, and performance measures in a regional transportation plan

October 12: Community Design/Transit Oriented Development

Required:

Duke, C. & Ewing, R. (2021). Development Lessons from Today's Most Successful New Towns and Master-Planned Communities. *Toward 21st Century New Towns: Past, Present, Prospects*. University of Pennsylvania Press.

Ewing, R., Tian, G., Lyons, T., & Terzano, K. (2017). Trip and Parking Generation at Transit-Oriented Developments: Five US Case Studies. *Landscape and Urban Planning*, 160, 69-78.

Recommended:

Talen, E. (2011). Sprawl Retrofit: Sustainable Urban Form in Unsustainable Places. *Environment and Planning-Part B*, 38(6), 952. (Read 960-974)

Ewing, R., Greenwald, M., Zhang, M., Walters, J., Feldman, M., Cervero, R., & Thomas, J. (2011). Traffic Generated by Mixed-Use Developments—Six-Region Study Using Consistent Built Environmental Measures. *Journal of Urban Planning and Development*, 137(3), 248-261.

Other Readings:

The Charter of the New Urbanism, The Neighborhood, The District, and The Corridor, <https://www.cnu.org/who-we-are/charter-new-urbanism>

Renne, J. L., Tolford, T., Hamidi, S., & Ewing, R. (2016). The Cost and Affordability Paradox of Transit-Oriented Development: A Comparison of Housing and Transportation Costs Across Transit-Oriented Development, Hybrid and Transit-Adjacent Development Station Typologies. *Housing Policy Debate*, 26(4-5), 819-834.

Jacobson, J., & Forsyth, A. (2008). Seven American TODs: Good Practices for Urban Design in Transit-Oriented Development Projects. *Journal of Transport and Land Use*, 1(2).

Equity:

Mueller, E. J., Hilde, T. W., & Torrado, M. J. (2018). *Methods for Countering Spatial Inequality: Incorporating Strategic Opportunities for*

Housing Preservation into Transit-Oriented Development Planning.
Landscape and Urban Planning, 177, 317-327

Assignment: Evaluate Orenco Station from New Urbanist Perspective

October 19: Regional Planning (Portland Case Study)

Guest lecturer: David Proffitt (Statewide Planning Mandates – 4:00-4:50)

Required:

Bartholomew, K., & Ewing, R. (2008). Land Use–Transportation Scenarios and Future Vehicle Travel and Land Consumption: a Meta-Analysis. *Journal of the American Planning Association*, 75(1), 13-27.

Park, K., Ewing, R., Sabouri, S., Choi, D. A., Hamidi, S., & Tian, G. (2020). Guidelines for a Polycentric Region to Reduce Vehicle Use and Increase Walking and Transit Use. *Journal of the American Planning Association*, 1-14.

Recommended:

Barbour, E., & Deakin, E. A. (2012). Smart Growth Planning for Climate Protection: Evaluating California's Senate Bill 375. *Journal of the American Planning Association*, 78(1), 70-86.

Ewing, R., & Proffitt, D. (2016). Improving Decision Making for Transportation Capacity Expansion: Qualitative Analysis of Best Practices for Regional Transportation Plans. *Transportation Research Record: (2568)*, 1-8

Other Readings:

Handy, S. (2008). Regional Transportation Planning in the US: An Examination of Changes in Technical Aspects of the Planning Process in Response to Changing Goals. *Transport Policy*, 15(2), 113-126.

Waddell, P. (2011). Integrated Land Use and Transportation Planning and Modelling: Addressing Challenges in Research and Practice. *Transport Reviews*, 31(2), 209-229.

Equity:

Lowe, K. (2014). Bypassing Equity? Transit Investment and Regional Transportation Planning. *Journal of Planning Education and Research*, 34(1), 30-44

Assignment: Summarize a scenario planning study

October 26: Social and Spatial Equity

Guest lecturer: Torrey Lyons (Transport Justice: Past, Present, and Future – 3:45-4:50)

Required:

Hamidi, S., Ewing, R., & Renne, J. (2016). How Affordable Is HUD Affordable Housing?. *Housing Policy Debate*, 26(3), 437-455.

Baker, D. M., Lopez, E., & Greenlee, A. J. (2021). Transit Development and Housing Displacement: The Case of the Chicago Red Line Extension. *Cities*, 115, 103212.

Recommended:

Golub, A., & Martens, K. (2014). Using Principles of Justice to Assess the Modal Equity of Regional Transportation Plans. *Journal of Transport Geography*, 41, 10-20.

Lyons, T., & Ewing, R. (2021). Does Transit Moderate Spatial Mismatch? The Effects of Transit and Compactness on Regional Economic Outcomes. *Cities*, 113, 103160.

Other Readings:

Aaronson, D., Faber, J., Hartley, D., Mazumder, B., & Sharkey, P. (2021). The Long-Run Effects of the 1930s HOLC “Redlining” Maps on Place-based Measures of Economic Opportunity and Socioeconomic Success. *Regional Science and Urban Economics*, 86, 103622.

Lee, R. J., Sener, I. N., & Jones, S. N. (2017). Understanding the Role of Equity in Active Transportation Planning in the United States. *Transport Reviews*, 37(2), 211-226.

Ewing, R., Hamidi, S., Grace, J. & Wei, D. (2016). Does Sprawl Hold Down Upward Mobility? *Landscape and Urban Planning*. 148, 80-88.

Equity:

Blumenberg, E. (2017). *Social Equity and Urban Transportation*, in *The Geography of Urban Transportation*, 4th Edition, Genevieve Giuliano and Susan Hanson, Editors. New York: The Guilford Press. 338-358.

Social equity, a concept also known as environmental justice, is the fair treatment and involvement of all people and communities—regardless of race, gender, national origin, or income level—in the development, implementation, and enforcement of environmental laws, regulations, and policies.

Assignment: Summarize and critique the environmental justice element of a regional transportation plan

November 2: Urban Design

Required:

Ameli, S. H., Hamidi, S., Garfinkel-Castro, A., & Ewing, R. (2015). Do Better Urban Design Qualities Lead to More Walking in Salt Lake City, Utah? *Journal of Urban Design*, 20(3), 393-410.

Forsyth, A. and Krizek, K. (2011). Urban Design: Is There a Distinctive View from the Bicycle?. *Journal of Urban Design*, 16(4), 531-549.

Recommended:

R. Buehler and J. Pucher, (2012) Walking and Cycling in Western Europe and the United States: Trends, Policies, and Lessons, *TR News*, 34-40.
Forsyth, A. (2015). What Is a Walkable Place? The Walkability Debate in Urban Design. *Urban Design International*, 20(4), 274-292.

Other Readings:

Frank, L. D., Schmid, T. L., Sallis, J. F., Chapman, J., & Saelens, B. E. (2005). Linking Objectively Measured Physical Activity with Objectively Measured Urban Form: Findings from SMARTRAQ. *American Journal of Preventive Medicine*, 28(2), 117-125.

Chen, L., Chen, C., Ewing, R., McKnight, C. E., Srinivasan, R., & Roe, M. (2013). Safety Countermeasures and Crash Reduction in New York City—Experience and Lessons Learned. *Accident Analysis & Prevention*, 50, 312-322.

Wood, L., Frank, L. D., & Giles-Corti, B. (2010). Sense of Community and Its Relationship with Walking and Neighborhood Design. *Social Science & Medicine*, 70(9), 1381-1390.

Equity:

Bereitschaft, B. (2017). Equity in Microscale Urban Design and Walkability: A Photographic Survey of Six Pittsburgh Streetscapes. *Sustainability*, 9(7), 1233.

Assignment: Photograph and document a great street

November 9: Context-Sensitive Street Design

Required:

Gregg, K., & Hess, P. (2019). Complete Streets at the Municipal Level: A Review of American Municipal Complete Street Policy. *International Journal of Sustainable Transportation*, 13(6), 407-418.

Ewing, R. (2008). Traffic Calming in the United States: Are We Following Europe's Lead? *Urban Design International*, Vol. 13, 90-104.

Recommended:

Ewing, R. (2002). Impediments to Context-Sensitive Main Street Design. *Transportation Quarterly*, 56(HS-043 478).

Dumbaugh, E.. (2005). Safe Streets, Livable Streets. *Journal of the American Planning Association*, 71(3), 283-300.

Other Readings:

Choi, D. A., & Ewing, R. (2021). Effect of Street Network Design on Traffic Congestion and Traffic Safety. *Journal of Transport Geography*, 96, 103200.

Equity:

Hagen, J. X. (2018). Traffic Calming and Environmental Justice: New York City's Neighborhood Slow Zones. *Transportation Research Record*, 2672(3), 175-184.

Assignment: Design a great street using StreetPlan.net

<https://streetplan.net/UT/U/100South1234/67566>
<https://streetplan.net/AL/U/100South12345/67569>
<https://streetplan.net/AL/U/100South12345678/67591>

November 16: Zoning, Growth Management, and Smart Growth

Required:

Manville, M., Monkkonen, P., & Lens, M. (2020). It's Time to End Single-Family Zoning. *Journal of the American Planning Association*, 86(1), 106-112.

Ewing, R., Lyons, T., Siddiq, F., Sabouri, S., Kiani, F., Hamidi, S., ... & Ameli, H. (2022). Growth Management Effectiveness: A Literature Review. *Journal of Planning Literature*, 08854122221077457.

Recommended:

Chapin, T. S. (2012). Introduction: From Growth Controls, to Comprehensive Planning, to Smart Growth: Planning's Emerging Fourth Wave. *Journal of the American Planning Association*, 78(1), 5-15.

Sciara, G. C. (2020). Implementing Regional Smart Growth without Regional Authority: The Limits of Information for Nudging Local Land Use. *Cities*, 103, 102661.

Other Readings:

Jepson, E. and Haines, A. (2014) Zoning for Sustainability: A Review and Analysis of the Zoning Ordinances of 32 Cities in the United States, *Journal of the American Planning Association* 80(3), 2014, 239-252.

Linkous, E. R. (2019). A Political Ecology of Exurbia in the Sunbelt: Lessons from an Award-Winning, "Unworkable" Plan. *Urban Affairs Review*, 55(4), 1175-1217.

Sabouri, S., Dillon, A., Proffitt, D., Townsend, M., & Ewing, R. (2019). State-of-the-Practice in Connecting and Coordinating Transportation and Land Use Planning in the USA. *Transportation Research Record*, 2673(9), 240-253.

Equity:

Whittemore, A. H. (2017). Racial and Class Bias in Zoning: Rezoning Involving Heavy Commercial and Industrial Land Use in Durham (NC), 1945–2014. *Journal of the American Planning Association*, 83(3), 235-248.

Assignment: Description of final project topic

November 23: Land Use Impacts on Travel

Required:

Stevens, M. R. (2017). Does Compact Development Make People Drive Less?. *Journal of the American Planning Association*, 83(1), 7-18.

Ewing, R., & Cervero, R. (2017). Does Compact Development Make People Drive Less? The Answer Is “Yes.” *Journal of the American Planning Association*, 83(1), 19-25.

Recommended:

De Gruyter, C. (2019). Multimodal Trip Generation from Land Use Developments: International Synthesis and Future Directions.

Transportation Research Record, 2673(3), 136-152.

van Wee, B., & Handy, S. (2014). Do Future Land-Use Policies Increase Sustainable Travel?. In *Handbook of Sustainable Travel* (231-242).

Springer Netherlands.

Other Readings:

Ewing, R., & Cervero, R. (2010). Travel and the Built Environment: A Meta-Analysis. *Journal of the American Planning Association*, 76(3), 265-294.

Winters, M., Brauer, M., Setton, E. M., & Teschke, K. (2010). Built Environment Influences on Healthy Transportation Choices: Bicycling versus Driving. *Journal of Urban Health*, 87(6), 969-993.

Equity:

Adkins, A., Makarewicz, C., Scanze, M., Ingram, M., & Luhr, G. (2017). Contextualizing Walkability: Do Relationships between Built Environments and Walking Vary by Socioeconomic Context?. *Journal of the American Planning Association*, 83(3), 296-314.

Assignment: Introduction to final project with research question or questions (2 of 15 pages single-spaced)

November 30: Transportation Impacts on Land Use

Required:

Ewing, R. (2008). Highway-Induced Development: Research Results for Metropolitan Areas. *Transportation Research Record* (2067), 101-109.

Giuliano, G., & Agarwal, A. (2004). Land Use Impacts of Transportation Investments: Highway and Transit, in *The Geography of Urban Transportation*, Third Edition, Susan Hanson and Genevieve Giuliano, Editors. New York: The Guilford Press. 237-273.

Editors. New York: The Guilford Press. 237-273.

Recommended:

Cervero, R. (2002). Induced Travel Demand: Research Design, Empirical Evidence, and Normative Policies. *Journal of Planning Literature*, 17(1), 3-20.

Siddiq, F., Dillon, A. & Ewing, R. (2021). Impact of Transit on Multifamily Property Values: A Meta-Analysis, *Housing Policy Debate*. Under Review

Other Readings:

Knowles, R. D., Ferbrache, F., & Nikitas, A. (2020). Transport's Historical, Contemporary and Future Role in Shaping Urban Development: Re-evaluating Transit Oriented Development. *Cities*, 99, 102607

Hurst, N. B., & West, S. E. (2014). Public Transit and Urban Redevelopment: The Effect of Light Rail Transit on Land Use in Minneapolis, Minnesota. *Regional Science and Urban Economics*, 46, 57-72.

Equity:

Fan, Y., Guthrie, A., & Levinson, D. (2012). Impact of Light-Rail Implementation on Labor Market Accessibility: A Transportation Equity Perspective. *Journal of Transport and Land Use*, 5(3), 28-39.

Ewing, R. (2017) A Mixed Picture of Gentrification, *Planning*, December 2017, 7-8.

Assignment: Literature review (4 of 15 pages)

For guidance on literature reviews, see

http://www.un.edu/depts/wcweb/handouts/literature_review.html

December 5-9: Final Exam Week