

URBPLAN 721: Applied Planning Methods

Syllabus (9/1/16)

Fall 2016—3.0 Credits
Wednesday, 1:30 p.m. to 4:10 p.m., AUP Room 158

Course Instructor: Dr. Robert Schneider (rjschnei@uwm.edu)

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Schneider Office Hours: M, 11:00 a.m. to 12:30 p.m. & TU, 1:30 p.m. to 3:00 p.m., AUP Room 334

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Course Background

As a professional planner, you will be an important participant in long-term decision-making processes. These decisions are often complicated and controversial. Some decisions may have consequences for the natural and built environments for decades and even centuries. Other decisions may create institutional frameworks that establish how organizations regulate development, communicate with the public, evaluate proposals, and measure progress toward long-range goals. While many factors contribute to these decisions, including political forces, data are almost always part of the argument. As a planner, people will look to you to understand, collect, analyze, and present data that can help inform long-term decisions.

This graduate-level course will help you learn about methods that are often used in the planning field. Broadly, the course is organized into five main parts: 1) understanding and interpreting data, 2) collecting secondary data, 3) collecting primary data, 4) analyzing data, and 5) presenting results. Advanced statistical analysis methods (e.g., regression modeling) and Geographic Information Systems are also common techniques used in planning practice, but they are covered in other courses.

Certain methods are used regularly in particular branches of the planning field (e.g., housing, economic development, transportation) but are less common in other branches. Therefore, you may have a natural interest in some methods but not in others. Keep an open mind. The approaches taught in this class may grow on you and may be useful in future years.

Students come to the urban planning field from many different backgrounds, so you may already be familiar with some of the methods covered in this course. Even if you are comfortable with a particular technique, it is usually possible to improve your understanding of the method. In addition, if you already have some experience, this course represents an opportunity to share your knowledge with other students. The best professional planners continue to teach, learn, and collaborate with their peers throughout their careers, so this course will facilitate this type of interaction. Several assignments are set up to allow students to collaborate—working together will help everyone develop and refine their skills.

The course includes lectures, assignments, and a final project, and these are discussed in greater detail, below.

I am looking forward to a great semester with all of you!
Bob

Readings and Class Participation

A different topic will be covered each class session. The readings listed under each session below are required readings that should be done before you get to class. Some of the readings will come from the required text, and others will be posted under “Content” on the class D2L website (<http://d2l.uwm.edu/>, Applied Planning Methods). All students are expected to read all the assigned readings BEFORE class and to actively participate in discussions.

In order to provide a productive learning environment for everyone, it is important for all students to engage in class. This includes showing up for class and asking questions and participating in discussions. In the interest of promoting a productive learning environment for all, please:

- Arrive on time and stay for the duration of class.
- Turn off or mute cell phones, mobile devices, and alarms for the duration of class.
- Turn off laptops unless instructed otherwise and refrain from accessing the internet on any other device during class.

Behaviors that detract from class learning will be penalized in the class participation grade. A sign-in sheet will usually be circulated at the beginning of class. Class participation may also include several quizzes on readings throughout the semester.

Assignments

The course assignments are designed to help you practice understanding, collecting, analyzing, and presenting planning-related data. Your assignments should be written to a professional standard, and writing quality will be considered in your grades. Communicating your ideas clearly and effectively through writing is essential for your career, so it is important for this class. For this course, it is appropriate (and encouraged) to discuss and work together on some assignments. For group assignments, only one assignment needs to be submitted for the group, but each person should be able to explain and understand all responses. In addition, group members will evaluate other members' contributions to the group. All assignments should be uploaded to the course D2L site by 5:00 p.m. on the due dates listed. If you have any problems with the D2L site, you can e-mail your assignment to rjschnei@uwm.edu. The assignments are listed below.

For each assignment, track the total number of hours you (or your whole group) spends on thinking/preparation and producing the document that you submit. The number of hours should be listed at the top of your assignment. Note that this should be a rough estimate of time, and it will not factor into your grade. In other words, you are graded on the quality of your work, not the time you report (although there may be a correlation). The main purpose of this is to help you understand how long it takes to think, collect data, conduct analyses, and write documents. As a professional, you will develop your own budgets with labor-hours and review budgets from other people with labor-hours, so this is an important but often overlooked skill in school. It may even help you budget your time in future graduate school classes.

Assignment #1: Write a Memo on a Planning Issue (Individual Assignment; Distribute 9/7/16, Due 9/21/16) (10%)

This individual assignment will give you practice summarizing how a planning issue is being portrayed in the media and sifting through media-reported statistics to identify original data sources that are the basis of these statistics. You will have an opportunity to choose among several current planning issues.

Assignment #2: Explore the American Community Survey and other Secondary Data (Work in Pairs; Distribute 9/21/16, Due 9/28/16) (10%)

Use American Factfinder (<http://factfinder.census.gov/>) to find planning-related data for Wisconsin from the American Community Survey (ACS). Use Microsoft Excel (or another spreadsheet program) to analyze geographic characteristics and population, household, and economic trends.

Assignment #3: Collect Field Data (Group Assignment; Distribute 9/28/16, Due 10/12/16) (10%)

Develop and use a field data collection instrument to gather information related to housing, economic development, transportation, water resources, or other planning issues in a neighborhood study area of your choice. Use this instrument as a guide to organize your data.

Assignment #4: Design and Implement an Online Survey (Group Assignment; Distribute 10/12/16, Due 10/26/16) (10%)

It can be useful to ask a sample of the community about their experiences and opinions during a planning process. This assignment allows you to practice designing and implementing a survey on a planning issue of your choice.

Assignment #5: Apply Common Planning Methods (Individual Assignment; Distribute 10/26/16, Due 11/9/16) (10%)

This assignment will help you learn more about the Milwaukee region and practice using several of the economic analysis methods discussed in class. These methods will include population projections, Gini Coefficient, shift-share analysis, and net present value.

Assignment #6: Conduct a Market Analysis (Individual Assignment; Distribute 11/9/16, Due 11/23/16) (10%)

Use ArcGIS Business Analyst to conduct a market analysis for a commercial store or restaurant in a Milwaukee neighborhood of your choice. You may choose any common type of business, such as a grocery store, pharmacy, clothing store, or sit-down restaurant. (TA trainings: F 11/7/14; W 11/12/14)

Final Group Project: Present Results from a Survey (Group Assignment; Distribute 11/23/16, Due 12/14/16) (30%)

Analyze data from your own survey (Assignment #4) or another survey besides the ACS (e.g., Wisconsin, Milwaukee, or neighborhood data from national transportation, health, or economic surveys). Present key results from the survey as they apply to a real or plausible planning problem. This will include a two-stage presentation process. The first presentation will be given in the second-to-last class session, and will be an overview of preliminary findings from the survey. This presentation will seek feedback from the public (the class) about which key findings to emphasize and how to present the results in the most relevant way. The second presentation will be a formal presentation of the survey, analysis methodology, and results, framed by the feedback from the previous presentation.

Conduct and Ethics

Much of this class is about gathering data. Cite your sources. If you get information from a printed, online, video or other source, cite it. If you cite a reference word for word, put those words in quotes. Don't use someone else's work as if it was your own without citing it. Citing sources, even if it takes extra time, enhances your professional credibility.

"Plagiarism includes: 1) Directly quoting the words of others without using quotation marks or indented format to identify them; or, 2) Using sources of information (published or unpublished) without identifying them; or, 3) Paraphrasing materials or ideas of others without identifying the sources."
—University of Wisconsin-Milwaukee Graduate School, "Academic Misconduct," Website, Available online: <http://www4.uwm.edu/dos/conduct/academic-misconduct.cfm>, August 2016.

Grading

Grades will be given on an A to F scale based on the following components of the class:

- Overall class attendance and participation, including possible quizzes (10%)
- Assignments (60%)
- Final Group Project (30%)

Assignments are due by 5:00 p.m. on the dates listed above. Each calendar day late will result in loss of one grade (i.e., an "A" assignment will be given a "B"). A paper received at 5:01 p.m. on the due date is considered one day late.

The grading scale will be based on points earned out of 100 possible points in each component area.

Number grades correspond with the following letter grades:

98 and above = A+
93 to 97.9 = A
91 to 92.9 = A-
88 to 90.9 = B+
83 to 87.9 = B
81 to 82.9 = B-
78 to 80.9 = C+
73 to 77.9 = C
(and so on)

Class Topics and Reading List

Part 1: Understanding and Interpreting Data

Class 1: Data in Practice (9/7/16) [Distribute Assignment #1]

Introductions

Course background & overview

Examples of how data are used in planning documents & arguments

Finding original data sources

Writing memos

Normalization and rates

1.1. Ford, K. "Planning in the Political Context." Chapter 11 in *The Planner's Use of Information*, edited by H. Dandekar. Second Edition, Chicago: Planners Press, 2003. (Read pp. 341-373)

1.2. Graves, J.M., B. Pless, L. Moore, A.B. Nathens, G. Hunte, and F.P. Rivara. "Public Bicycle Share Programs and Head Injuries," *American Journal of Public Health*, pp. e1-e6, 2014. (Read the abstract and look closely at Table 2. Skim the rest. Be critical.)

1.3. Pendall, R. and C. Hedman. *Worlds Apart: Inequality Between America's Most And Least Affluent Neighborhoods*, Urban Land Institute, Available online, http://www.urban.org/research/publication/worlds-apart-inequality-between-americas-most-and-least-affluent-neighborhoods/view/full_report, 2015. (Read pp. 1-9)

Note: Interactive map is available online, <http://datatools.urban.org/features/ncdb/top-bottom/index.html#7/42.000/-94.000>.

1.4. Lau, C. "Writing Tips for Planners," *UrbDeZine Los Angeles*, Available online, <http://losangeles.urbdezine.com/2015/09/08/writing-tips-planners/>, September 8, 2015.

1.5. Plain English Campaign. "How to Write in Plain English," Available online, <http://www.plainenglish.co.uk/files/howto.pdf>, 2016.

Class 2: Neighborhood Data: Sherman Park (9/14/16) [No official class]

The instructor will be attending a conference in Vancouver, so this week will be an opportunity to learn more about a local neighborhood and get exposed to the American Community Survey through data from that neighborhood. This year's neighborhood is Sherman Park. Sherman Park received national attention in August for a police shooting and the following civil unrest. This has brought discussions of segregation, inequality, lack of job opportunity, distrust of police, and other challenging issues to the forefront of local news. Your task this week is to visit and observe the characteristics of Sherman Park (by car, bus, bicycle, and/or foot). When visiting, take notes and answer the following questions:

- What does the neighborhood built environment look like? (What condition are the houses and apartments in? Do businesses look attractive? Are streets, sidewalks, crosswalks, and traffic signals well-maintained? Are parks and other public and private spaces attractive? How does the built environment compare with other parts of the city?)
- What does the neighborhood social environment look like? (Are there people out walking? Do people appear to talk to each other or interact in other ways? Are people visiting businesses, parks, churches, or other activity locations? Do people look happy? What ages, skin colors,

genders, and personal characteristics do you see? Do you think that the social environment is very different at other times of day and night?)

Then review current and historic American Community Survey data that will be provided from the Sherman Park neighborhood. Come to Class 3 ready to discuss your observations and data about the neighborhood. Note that this is not graded as an assignment; it is to be done instead of class time and will be considered as part of your participation grade.

2.1. Mack, N., C. Woodsong, K.M. MacQueen, G. Guest, and E. Namey. "Participant Observation," Module 2 in *Qualitative Research Methods: A Data Collector's Field Guide*, Family Health International, Available online, <https://www.urbanreproductivehealth.org/sites/mle/files/datacollectorguideenrh.pdf>, 2005. (Skim pp. 13-27)

2.2. Niles, R. "Statistics Every Writer Should Know," Available online, <http://www.robertniles.com/stats/>, 2013. (Optional)

2.3. US General Accounting Office. Quantitative Data Analysis: An Introduction, GAO/PEMD-10.1.11, Available online, <http://www.gao.gov/special.pubs/pe10111.pdf>, May 1992. (Skim p. 20-50) (Optional)

Part 2: Collecting Secondary Data

Class 3: The US Census and American Community Survey (9/21/16) [Distribute Assignment #2]

Discussion of Sherman Park observations and data

American Community Survey background

Introduction to sampling concepts (population, sample size, margin of error)

Microsoft Excel database functions & pivot tables

3.1. US Department of Commerce, US Census Bureau. *A Compass for Understanding and Using American Community Survey Data: What General Data Users Need to Know*, Available online, <https://www.census.gov/content/dam/Census/library/publications/2008/acs/ACSGeneralHandbook.pdf>, October 2008. (Read pp. 1-15, 22-24, A18-A21)

3.2. US Department of Commerce, US Census Bureau. "American FactFinder," Available online, <http://factfinder.census.gov/>, 2016.

3.3. US Department of Commerce, US Census Bureau, 2010-2014 ACS 5-Year Summary File Variables, Census Data API: Variables in /data/2014/acs5/variables, Available online, <http://api.census.gov/data/2014/acs5/variables.html>, 2016.

Class 4: Other Major Planning Data Sources (9/28/16) [Distribute Assignment #3]

Secondary data sources, including employment data

Unit of observation & Unit of analysis

4.1. Summary of Common Planning Data Sources. Available from Course D2L site, 2016.

4.2. US Department of Commerce, US Census Bureau. Longitudinal Employer-Household Dynamics (LEHD), Available online, <http://lehd.ces.census.gov/>, 2016. (Explore the “On The Map” application)

4.3. Hornstein, A. and K. Rhodes. “Will a Surge in Labor Force Participation Impede Unemployment Rate Improvement?” Federal Reserve Bank of Richmond Economic Brief, EB13-08, Available online, https://www.richmondfed.org/publications/research/economic_brief/2013/pdf/eb_13-08.pdf, August 2013.

Part 3: Collecting Primary Data

Class 5: Field Data Collection (10/5/16)

Data collection forms

Performance measures

Data types

5.1. Crump, J. *A Guide to Neighborhood Housing Assessment: A Student Workbook*, University of Minnesota Housing and Community Development Course, Available online, <http://faculty.design.umn.edu/jrcrump/pdf/assessment.pdf>, No date. (Read Appendix 3: Housing Conditions Survey Form)

5.2. Community Planning Workshop. *West University Neighborhood Housing Condition Assessment*, Draft Report prepared for City of Eugene Planning and Development Department, Available online, http://pages.uoregon.edu/schlossb/arcpad/housing/WUN_Housing_Assessment.pdf, August 2004. (Skim Appendix C: External Condition Evaluation Methodology)

5.3. Wisconsin Department of Health and Family Services (DHFS). *A DHFS Simple Guide to Performance Measurement*, 2005. (Skim document)

5.4. Wisconsin Department of Transportation. *Mobility, Accountability, Preservation, Safety, Service (MAPSS) Performance Improvement Report*, Available online, <http://wisconsin.gov/Documents/about-wisdot/performance/mapss/perf-report.pdf>, July 2016. (Skim document)

5.5. National Park Service, National Center for Preservation Technology and Training in collaboration with Heritage Emergency National Task Force. *Rapid Building and Site Condition Assessment*, Developed for the Federal Emergency Management Administration, Available online, http://www.parks.ca.gov/pages/22491/files/ncptt_building_and_site_condition_assessment_form.pdf, 2005. (Skim document)

Class 6: Survey Design (10/12/16) [Distribute Assignment #4]

Research question/purpose

Survey structure

Survey questions

6.1. Fink, A. *How To Conduct Surveys: A Step-By-Step Guide*, Fourth Edition, Los Angeles: Sage, 2009. (Read pp. 13-31, 35-38, 44-45)

6.2. US Department of Commerce, US Census Bureau, American Community Survey Questionnaire, Available online, <https://www2.census.gov/programs-surveys/acs/methodology/questionnaires/2015/quest15.pdf>, 2015. (Review form, thinking about how carefully it was constructed)

Class 7: Survey Sampling and Distribution & Fundamentals of Analysis (10/19/16)

Sampling concepts (target population, non-probability sampling, survey distribution, sample size, response rate, bias)

Types of error

Statistics basics (sample size, confidence level)

7.1. Fink, A. *How To Conduct Surveys: A Step-By-Step Guide*, Fourth Edition, Los Angeles: Sage, 2009. (Read pp. 51-63)

7.2. Groves, R.M., F.J. Fowler, Jr., M.P. Couper, J.M. Lepkowski, E. Singer, and R. Tourangeau. *Survey Methodology*, Hoboken, NJ: John Wiley & Sons, Inc., 2004. (Read pp. 39-60)

Part 4: Analyzing Data

Class 8: Common Planning Analysis Methods, Part 1 (Projections & Economic Analysis) (10/26/16) [Distribute Assignment #5]

Population projections

Cohort-component analysis

Gini coefficient

8.1. Southeastern Wisconsin Regional Planning Commission (SEWRPC). *The Economy of Southeastern Wisconsin*, Technical Report No. 10, Fifth Edition, Available online, <http://www.sewrpc.org/SEWRPCFiles/Publications/TechRep/tr-010-5th-ed-economy-se-wisc.pdf>, 2013. (Skim pp. 1-15, 27-35, 39-40)

8.2. Southeastern Wisconsin Regional Planning Commission (SEWRPC). *The Population of Southeastern Wisconsin*, Technical Report No. 11, Fifth Edition, Available online, <http://www.sewrpc.org/SEWRPCFiles/Publications/TechRep/tr-011-5th-ed-population-se-wisc.pdf>, 2013. (Skim pp. 1-16, 27-43, 45-61, 82) (pp. 45-61 includes the cohort-component method)

8.3. Southeastern Wisconsin Regional Planning Commission (SEWRPC). "Summary of Results from Fall 2013 Visioning Activities," Available online, <http://vision2050sewis.org/Vision2050/TheResults/fFall2013VisioningResults>, 2014. (Skim results under Important Places Mapping, Visual Preference Survey, SWOT Analysis, Land Use and Transportation Goals, and Land Use and Transportation Questionnaire)

Class 9: Common Planning Analysis Methods, Part 2 (Income Distribution & Discounting) (11/2/16)

Location quotient
Shift-share analysis
Discounting
Net present value

9.1. Institutional Research and Planning, The Ohio State University. "Location Quotient Technique," 2014.

9.2. Economic Modeling Specialists, Inc. "Understanding Location Quotient," EMSI Resource Library, Available online, http://www.economicmodeling.com/wp-content/uploads/2007/10/emsi_understandinglq.pdf, 2014.

9.3. Crepeau, R. "Analytical Methods in Planning." Chapter 4 in *The Planner's Use of Information*, edited by H. Dandekar. Second Edition, Chicago: Planners Press, 2003. (Read pp. 148-152)

9.4. Washington Regional Economic Analysis Project (REAP). "Shift-Share Analysis of Employment Growth: King County, 2006-2011," Available online, <http://washington.reaproject.org/analysis/shift-share/>, 2013. (Need to select "Counties" and then "King" to see the analysis.)

9.5. Boardman, A.E., D.H. Greenberg, A.R. Vining, and D.L. Weimer. "Benefits and Costs in Different Time Periods: The Mechanics of Discounting," Chapter 4 in *Cost-Benefit Analysis: Concepts and Practice*, Prentice Hall: Upper Saddle River, NJ, 1996. (Read pp. 119-145)

9.6. New Zealand Treasury. *Guide to Social Cost Benefit Analysis*, Available online, <http://www.treasury.govt.nz/publications/guidance/planning/costbenefitanalysis/guide/cba-guide-jul15.pdf>, 2015. (Skim pp. 6-56) (Optional)

Class 10: Common Planning Analysis Methods, Part 3 (Market Analysis) (11/9/16)

[Distribute Assignment #6]

(Teaching Assistant training on Business Analyst: Th, 11/10/16, 3:00 p.m. to 5:00 p.m.)

Cost-benefit analysis & challenges
Introduction to market analysis

10.1. Wiewel, W. and R. Mier. *Analyzing Neighborhood Retail Opportunities: A Guide for Carrying Out a Preliminary Market Study*, Planning Advisory Service Report 358, 1981.

Class 11. Common Planning Analysis Methods, Part 4 (Market Analysis) (11/16/16)

(Teaching Assistant training on Business Analyst: Th, 11/17/16, 11:00 a.m. to 1:00 p.m.)

Market analysis examples
Market analysis using ArcGIS Business Analyst

11.1. Baraboo Economic Development Commission and University of Wisconsin-Extension. *Baraboo Retail Market Analysis: A Study of Business Retention, Expansion and Recruitment Opportunities*, Available online, http://sauk.uwex.edu/files/2011/09/Baraboo_Report-Final1.pdf, 2011. (Optional) (Skim pp. 1-53; Read p. 53-59)

11.2. Vartivarian, T. "West Village Neighborhood Commercial Development Potential: A Preliminary Market Analysis," University of Michigan College of Architecture and Urban Planning, 1997. (Optional)

Class 12: Common Planning Analysis Methods, Part 5 (Site Analysis & New Frontiers) (11/23/16)
[Distribute Final Group Assignment]

Trip generation

Health impact assessments

Real-time traffic

12.1. Institute of Transportation Engineers. *Trip Generation Handbook: An ITE Recommended Practice*, Second Edition, June 2004. (Read pp. 1-6, 15-17)

12.2. Institute of Transportation Engineers. *Trip Generation Manual*, Volume 2: Data, Ninth Edition, 2012. (Read pp. 387-390)

12.3. Handy, S.L., K. Shafizadeh, and R. Schneider. *California Smart-Growth Trip Generation Rates Study*, Final Report, University of California, Davis for the California Department of Transportation, Available online, http://downloads.ice.ucdavis.edu/ultrans/smartgrowthtripgen/Final_Report.pdf, 2013. (Read report and download spreadsheet adjustment tool "CA_SGTG_Spreadsheet_Tool_1.0.xlsx" from the "Products" portion of the project website: <http://ultrans.its.ucdavis.edu/projects/smart-growth-trip-generation>)

12.4. Streetmix. Website for visualizing street design, Available online, <http://streetmix.net/-/15230>, 2014.

12.5. Burgess, R. "Google Maps gets Real-Time Traffic, Crowdsources Android GPS data," Techspot: Technology News and Analysis, Available online, <http://www.techspot.com/news/48015-google-maps-gets-real-time-traffic-crowdsources-android-gps-data.html>, March 30, 2012.

Part 5: Presenting Results

Class 13: Graphic Representation of Planning Data (11/30/16)

Potential planning applications of technology and social media

Big Data and crowdsourcing

Developing tables and figures (critique graphics)

Advice on presentations to 1) ask for public feedback and 2) present polished final information

13.1. Hammon, M. "Data-Driven: Leveraging the Potential of Big Data for Planning," *Planning*, Volume 81, Number 4, pp. 23-29, April 2015.

13.2. Schweitzer, L. "Planning and Social Media: A Case Study of Public Transit and Stigma on Twitter," *Journal of the American Planning Association*, Volume 80, Number 3, pp. 218-238, 2014.

13.3. Carpenter, M. "Tampa Mayor Bob Buckhorn Has His City Thinking Like a Marketer," *Livability: America's Best Places to Live & Visit*, Available online: <http://livability.com/best-places-blog/tampa-bay-mayor-bob-buckhorn-has-his-city-thinking-like-a-marketer/>, June 18, 2013.

13.4. Campbell-Dollaghan, K. "What Would a City Based on Your Foursquare Data Look Like?" Gizmodo.com, Available online, <http://gizmodo.com/what-would-a-city-based-on-your-foursquare-data-look-li-1307212739>, September 13, 2013.

Class 14: Preliminary Group Presentations: Asking for Public Feedback (12/7/16)

Different types of public meetings (purposes: educating, information gathering, feedback on alternatives, presenting planning recommendations)

"Public Q & A Session" for Groups

Class 15: Final Group Presentations: Polished Final Presentation (12/14/16)

Formal Group Presentations