

Harvard University
Graduate School of Design

SES-5495
Urban Economics for Planners and Policymakers

Fall 2021

Meeting time: Tuesdays and Thursdays 12:00–1:15pm

Location: Gund 109 (and select virtual sessions via Zoom)

Zoom link:

<https://harvard.zoom.us/j/93549371188?pwd=RVNHeHJlN1RwTHVSQkc3M2IzBjJCUT09>

Faculty: Dr. Rachel Meltzer, rmeltzer@gsd.harvard.edu

Teaching Assistant: Laura Bermudez Duchamp, lbermudezduchamp@gsd.harvard.edu

Office hours: Tues. 2:30-4:30pm + and by appointment, please email me ahead of time for both options. All office hours will be held via Zoom; if I can secure a regular outdoor location for in-person meetings I will share that information.

Zoom link:

<https://harvard.zoom.us/j/95080727960?pwd=ek1kY0hhWDJmNzg1eVN5anZTQlZnZz09>

This syllabus is subject to change based on the needs and circumstances of the class. I will always include a version number (e.g. “v1”) in the name of the syllabus document to keep track of updated versions. I will provide at least 10 days’ notice if any changes are made.

Overview of the course

This course introduces economic frameworks for understanding both the benefits and challenges of living in, working in and managing cities. Urban economics incorporates the concept of space into canonical economic models and provides a lens for analyzing and describing the nature and organization of economic activity in urban settings. We will explore questions around why cities exist in the first place, what determines their growth, and what features contribute to their economic advantages as well as their unique problems. Why do some cities grow faster than others? Can cities ever get *too* dense or large? We will draw from typical urban economic models and frameworks, but will also discuss and test their limits when applying them to complex urban systems. For example, how well do these models address issues of segregation and informality in cities? The course will draw from research and scholarship in the field of urban economics, as well as actual cases, policy applications and guest lecturers employing these concepts in the field. Students who take this class will be able to use economic frameworks and methods to design, evaluate and implement planning and policy interventions in a range of urban settings.

This course assumes no previous coursework in economics and will require some, but not extensive, math and graphing. This course satisfies the *economic methods* requirement for GSD

urban planning students and is open to cross-registrant students from other programs (including those from MIT).

Learning objectives

Upon successful completion of the course, students will be able to:

- Use microeconomic frameworks to understand the spatial organization and growth of cities;
- Recognize and apply a range of metrics to describe and analyze conditions within and across cities;
- Understand the limits of traditional urban economic models in explaining urban dynamics and challenges;
- Weigh the trade-offs between the benefits and costs of living and working in cities;
- Use urban economic frameworks and empirical evidence to design and assess urban policy and planning interventions.

How the course will run

After the first two weeks of virtual sessions, this course will primarily meet in person. Given the changing circumstances around us and the restrictions placed on in-person teaching, some sessions may revert to virtual delivery formats in order to better facilitate smaller group discussions or content delivery to the larger class. For now, the only online sessions are those with guest speakers (who cannot visit us in person given current campus restrictions), but this schedule is subject to adjustments as we go—again, I will do my best to provide at least 10 days’ notice of any changes.

Most class sessions will begin with a lecture format where I lay out the main concepts and take-aways from the readings. I typically use PowerPoint slides to document these main ideas and will incorporate exercises during the class discussion to practice the concepts we’re learning. These slides and handouts will be made available to you via Canvas; they are not, however, substitutes for attending the lecture itself. Discussion will either be integrated into the lecture time or achieved via break-out groups. There are some sessions where the entire meeting time will be done in break-out groups. The topics for break-out sessions will be prompted by questions or cases specific to the material for the day. *Although this is a large class, I expect students to participate on a regular basis and exchange ideas in real time.*

Since this is a large class, and we may be using the online-format occasionally, we will use [Miro](#) as a supplement to our break-out discussions. This online collaboration tool will facilitate in documenting and sharing the exchanges from the discussion break-outs across the larger class. You will receive guidance on how to use this tool from Laura, the TA.

Please refer to the Urban Economics Course Schedule posted along with this syllabus for more details on how each class meeting will be delivered, what form it will take and what, if any, deliverables are due on that day.

Texts and readings:

There is only one required book, although we will pull chapters from the optional books. Feel free to use earlier versions of any book; however, the onus is on you to reconcile any differences in chapter numbers or content. All books are made available via library reserves and in online formats.

Any other reading will be posted as a document or via a direct link on Canvas. Always read, if assigned, the chapters in the textbook before diving into the articles.

Readings are expected to be completed for the class under which they are listed. A number of readings include higher-level math, statistical analysis and theoretical models. Feel free to skip or skim those sections; the substantive take-aways are usually described either alongside or in sections that follow.

I may reference optional readings in my lectures, but you will not be tested or graded on their content. Consider the readings in their entirety as a comprehensive reference for you, in this class and through the rest of your studies (and career!).

Required Book

O'Sullivan, Arthur. *Urban Economics*. 9th Edition. New York: McGraw-Hill Education.

Please also subscribe to the (free) daily newsletter from CityLab: <https://www.bloomberg.com/citylab>. These articles are timely applications of the many concepts we'll be discussing in class. I may occasionally ask you to share what you've read in this outlet (or other city-related publications you follow).

Optional Books

O'Flaherty, Brendan. *City Economics*. Cambridge: Harvard University Press.

Glaeser, Edward. 2011. *Triumph of the City*. New York: Penguin Books.

Jacobs, Jane. 1989. *The Death and Life of Great American Cities*. New York: Vintage Books.

Colander, David. *Microeconomics*. 11th Edition. New York: McGraw-Hill Education.

Method of evaluation and requirements

Grading

Your performance in this class will be graded following the GSD's established rubric. Please refer to information from the [registrar](#) for more details on the grading scale and qualifications.

To get the most out of this course, you will need to actively engage with the assigned readings, the regular problem sets and class discussions. I've curated a set of assignments with a range of modalities so you have several different ways to learn and show your mastery. You will receive more detailed information on the exam and final memo later in the semester. I am happy to work out reasonable arrangements for deadline adjustments with at least 2 weeks' notice; I understand unforeseen circumstances sometimes arise and those will be addressed on a case-by-case basis. Missed deadlines or assignments without any notice or accommodation will result in grade penalties.

All assignments and exams will be submitted via Canvas and all grades and feedback will be sent back to you via Canvas.

Assignment/deliverable	Percentage of final grade
Problem sets (4 total)	30 %
Midterm exam (take-home)	25 %
Final testimony/memo	35 %
Discussion questions & class participation	10 %
Total	100 %

Academic Integrity and Conduct

While group collaboration and peer-to-peer support are welcome in this class, you are expected to submit your own final work products. While all of the assignments (with the exception of the final memo, to some degree) can be completed using only the readings and resources assigned in the class, you are welcome to use outside sources (but will not be penalized for not doing so). In all cases, please cite your sources; I do not have a preference about the citation format, but please just be consistent. Plagiarism will not be tolerated and I will not accept papers completed for other courses. Please also review the [GSD's Academic Conduct Policy](#).

The work you submitted is expected to be of professional quality. Please leave enough time for thorough proofreading (both in terms of content and writing style/grammar). In my feedback I will not be able to do any copyediting on writing style/grammar, and you will be penalized for work that includes excessive writing mistakes and a general lack of clarity in presentation.

Attendance, etiquette, and recordings

Unless otherwise notified, your attendance is expected for every class session. I understand that conflicts can come up unexpectedly, but please communicate as soon as you know whether it will be difficult for you to participate in any class meeting.

I expect and hope that you will leave your camera on during the online meetings. If, however, there are reasons why that is not possible, please notify me ahead of the class meeting.

The success of the class discussions depends on respectful exchanges. When you participate in class discussions (either orally or in writing) please be mindful of others' perspectives and experiences, which may differ from your own. Indeed, diversity of ideas and experiences is something we can all benefit and learn from. I look forward to robust debates that can involve a range of ideas, but I expect those ideas to be shared in a discerning way.

If/when we do meet online, I will not record the class discussions. However, the Miro boards will be saved and made available for the entirety of the semester. You are reminded to *not* make your own recordings of the Zoom sessions as you need all of the participants' consent to do so.

Accommodations for Students with Disabilities

Students needing academic adjustments or accommodations because of a documented disability must present their Faculty Letter from the Accessible Education Office (AEO) and speak with me by the end of the second week of the class. All discussions will remain confidential, although faculty members are invited to contact AEO to discuss appropriate implementation.

Student Services, Resources, and Wellbeing

Your personal well-being is paramount. Please pay attention to your physical and mental health and make yourself familiar with the resources available to you through the [GSD's Office of Student Services](#). I encourage you to reach out to Student Services if you are experiencing personal challenges or hardship, and rest assured that I will work with you to make accommodations for your course requirements.

Course schedule

I. Introduction to economic thinking

1. Introduction to the course, cities and “economic thinking”

Introductions made. We’ll start to intuitively consider what is unique about cities and start to engage with “economic thinking” to understand how cities work.

Required readings and media

Watch this: <https://www.theatlantic.com/video/index/380650/what-is-a-city/>

Colander: Chptr. 1, Intro to Economics/Economic Reasoning

Jacobs, Jane. 1989. “The uses of sidewalks: contact.” *The Death and Life of Great American Cities*. New York: Vintage Books.

Optional readings

Ihlandfelt, Keith R. 1995. “The Importance of the Central City to the Regional and National Economy: A Review of the Arguments and Empirical Evidence,” *Cityscape*, 1(2).

Stiglitz, J., 1998. The private uses of public interests: Incentives and institutions. *Journal of Economic Perspectives*, 12(2), pp.3-22.

2. Microeconomic fundamentals I

We will review fundamental microeconomic concepts and methods that will be useful for the rest of the course. These tools are not only technically important, but also help us develop the economic lenses through which we approach urban questions and challenges.

- a. “Economic thinking”: weighing costs and benefits in decisions
- b. How to approach and use stylized models
- c. Concept 1: Comparative advantage and opportunity cost
 - Production Possibility Frontier and Trade
 - Marginal principle
- d. Concept 2: Markets
 - Supply and demand
 - Equilibrium/clearing; assumptions behind them (perfect competition)
 - Shifts in curves; movements along curves
 - Price ceilings and floors

Required readings and media

Colander: Chptrs. 2 (I recommend taking a look at the Appendix on graphing first; focus on material through pg. 37, or “Globalization”), 4, 5 (focus on material up through pg. 110; the Appendix is useful, but optional), 6 (focus on material up through pg. 131)

Optional readings

Colander: Chptr. 3
O’Sullivan: Chptr. 2

3. Microeconomic fundamentals II

We will continue reviewing fundamental microeconomics concepts and frameworks. We’ll also start to grapple with their limits.

- a. Concept 2: Markets (con.)
 - Elasticities
- b. Concept 3: When assumptions about markets fail:
 - Public goods
 - Externalities

Required readings and media

Colander: Chptr. 8

Optional readings

Colander: Chptrs. 7, 13

II. Urban fundamentals and growth

4. What are cities? What are their defining features? What explains their growth?

We will begin to incorporate space into microeconomic models. We will use economic principles and processes to understand the origins of urban centers and the defining properties of cities. We will touch briefly on metrics for identifying cities and urban areas and introduce one of the most fundamental tenets of urban economics—agglomeration economies.

- a. A more formal treatment of cities: defining properties, why they exist, why they grow.

- b. Scale, geographic designation: how to define “cities”
- c. Trade and comparative advantage

Required readings and media

O’Sullivan: Introduction and Chptrs. 3, 4

Boustan, L.P., Buntin, D.M. and Hearey, O., 2013. *Urbanization in the United States, 1800-2000* (No. w19041). National Bureau of Economic Research.

Carlino, G.A., 2011. Three keys to the city: Resources, agglomeration economies, and sorting. *Business Review*, (Q3), pp.1-13.

Optional readings

O’Flaherty: Chptrs. 1, 2

Glaeser, E.L., 1998. Are cities dying?. *Journal of economic perspectives*, 12(2), pp.139-160.

Jacobs, Jane. 1989. “The generators of diversity.” *The Death and Life of Great American Cities*. New York: Vintage Books

5. Why cities grow

We will explore in more depth what factors drive urban growth. We will first focus on production-side determinants, such as firm decision-making around labor pool advantages and transportation costs. We start to consider how the benefits from growth can vary at different scales and become familiar with different metrics for agglomeration.

- a. Agglomeration in more depth
 - Production side
 - Measures of agglomeration
- b. Firm location decisions

Required readings and media

Listen to: <https://www.npr.org/templates/story/story.php?storyId=121304873>

O’Sullivan: Chptr. 4, 5

Quigley, J.M., 1998. Urban diversity and economic growth. *Journal of Economic perspectives*, 12(2), pp.127-138.

Rosenthal, S.S. and Strange, W.C., 2020. How close is close? The spatial reach of agglomeration economies. *Journal of economic perspectives*, 34(3), pp.27-49.

Rappaport, Jordan. "U.S. Urban Decline and Growth: 1950-2000." Federal Reserve Bank of Kansas City Economic Review 88(2003).

Optional readings

Puga, D., 2010. The magnitude and causes of agglomeration economies. *Journal of regional science*, 50(1), pp.203-219.

Brooks, L. and Lutz, B., 2019. Vestiges of transit: Urban persistence at a microscale. *Review of Economics and Statistics*, 101(3), pp.385-399.

Glaeser, E.L. and Ponzetto, G.A., 2010. "Chapter 10: Did the Death of Distance Hurt Detroit and Help New York?" *Agglomeration Economics* (pp. 303-338). University of Chicago Press.

Optional readings on agglomeration indices:

Ellison, G. and Glaeser, E.L., 1997. Geographic concentration in US manufacturing industries: a dartboard approach. *Journal of political economy*, 105(5), pp.889-927.

Ellison, Glenn, Glaeser, Edward L., and Kerr, William R., 2010. "What Causes Industry Agglomeration? Evidence from Coagglomeration Patterns." *The American Economic Review*, 100(3): 1195-1213.

6. Case: COVID and city fundamentals

Required readings and media

Listen to: <https://www.economist.com/podcasts/2021/02/22/when-cities-breathe-out-how-will-they-change-in-the-post-pandemic-world>

Overman, Henry and Max Nathan. 2021. "Will coronavirus cause a big city exodus?" *CentrePiece*.

Florida, Richard. May 14th, 2021. "The Death and Life of the Central Business District." *CityLab*.

Muro, Mark et al. June 24th, 2021. "Remote Work Won't Save the Heartland." *The Avenue*. The Brookings Institution.

Optional readings

Ramani, Arjun and Nicholas Bloom. 2021. “The Donut Effect of COVID on Cities.” *NBER Working Paper 28876*.

Muggah, Robert and Thomas Ermacora. April 20th, 2020. “Opinion: Redesigning The COVID-19 City.” *NPR*.

Gaspar, J. and Glaeser, E.L., 1998. Information technology and the future of cities. *Journal of urban economics*, 43(1), pp.136-156.

7. Agglomeration continued and demand for city living

We continue with urban agglomerative forces, but now focusing on demand-side factors. There are benefits from urban density and living that are generated by decisions made by consumers and residents in cities. We consider how cities are places of consumption and amenities, in addition to production and employment, and how these forces have intensified in recent years.

- a. Demand for urban living/consumption (consumption side)
- b. Consumption based agglomerative externalities

Required readings and media

O’Sullivan: Chptr. 6

Glaeser, Edward L., Jed Kolko, and Albert Saiz. “Consumer City.” *Journal of Economic Geography* 1(2001): 27–50.

Carlino, G.A., 2009. Beautiful City. *Business Review*, (Q3), pp.10-17.

Jaffe, Eric. February 23, 2016. “The Real Source of America's Urban Revival.” *CityLab*. (this is a summary of the Couture and Handbury article cited in full below)

Optional readings

Couture, V. and Handbury, J., 2020. Urban revival in America. *Journal of Urban Economics*, 119, p.103267.

Ellen, Ingrid Gould and Katherine O’Regan, “Crime and Urban Flight Revisited: The Effect of the 1990s Drop in Crime on Cities.” *Journal of Urban Economics* 68(2010): 247-259.

Baum-Snow, N. and Hartley, D., 2020. Accounting for central neighborhood change, 1980–2010. *Journal of urban economics*, 117, p.103228.

8. Case: Retail apocalypse, e-commerce and urban agglomeration

Required readings and media

Listen to this: <https://www.archdaily.com/926949/city-of-the-future-shares-thoughts-on-retail-and-vibrant-streets>

Wu, Tim. November 22nd, 2019. “The Life and Death of the Local Hardware Store.” *The New York Times*.

Farrell, Diana, Lindsay Relihan and Marvin Ward Jr. 2018. *Shopping, Near and Far Local Commerce in the Digital Age: Executive Summary*. JP Morgan Chase Institute.

Kolko, J., 2000. The death of cities? The death of distance? Evidence from the geography of commercial Internet usage. *The internet upheaval: Raising questions, seeking answers in communications policy*, pp.73-98.

Optional readings

Relihan, Lindsay. 2017. “Is Online Retail Killing Coffee Shops? Estimating the Winners and Losers of Online Retail using Customer Transaction Microdata.” Working paper.

9. City right-sizing and weighing the trade-offs of urban growth

While, thus far, the frameworks have treated growth as a non-controversial goal, we now consider the trade-offs between city size, productivity and equity. Often the benefits of cities come with costs, and we will develop tools to identify and weigh their relative impact and importance. We also situate cities in the context of broader regions where multiple urban centers of different sizes and features co-exist (and sometimes compete) with one another.

- a. Regional equilibria
- b. Trade-offs between economies of scale and congestion/nuisances of density
- c. Trade-offs between prosperous and inclusive growth

Required readings and media

Listen to: “Premium Elevation” at <https://www.npr.org/podcasts/555340969/there-goes-the-neighborhood>

O’Sullivan: Chptr. 7

Duranton, G. and Puga, D., 2020. The economics of urban density. *Journal of Economic Perspectives*, 34(3), pp.3-26.

Angel, S., Parent, J., Civco, D.L. and Blei, A.M., 2011. Making room for a planet of cities. Cambridge, MA: Lincoln Institute of Land Policy.

Glaeser, Edward. 2011. "Why Do Cities Decline?" *Triumph of the City*. New York: Penguin Books.

Optional readings and media

Kahn, M.E., 2010. 11. New Evidence on Trends in the Cost of Urban Agglomeration. In *Agglomeration economics* (pp. 339-354). University of Chicago Press.

McGrew, Will. September 6th, 2018. "The latest research on the efficacy of raising the minimum wage above \$10 in six U.S. cities," *Center for Equitable Growth*.

Listen to: <https://www.npr.org/2018/11/13/667544784/how-amazons-new-headquarters-could-change-communities-in-new-york-and-virginia>

III. Labor markets and economic development

10. Labor and employment

We review models that depict labor markets in urban settings. We consider the spatial implications of labor markets and what happens when access to jobs and good wages is not even. We also look at examples of government intervention that aim to improve wage and employment outcomes in cities.

- a. Features of urban labor markets
- b. Graphing and visualizing employment and labor markets
 - Introduction to government intervention on wages and employment (supply vs. demand side)

Required readings and media

Listen to: <https://www.npr.org/2019/06/14/732847076/episode-919-are-cities-overrated>

O'Sullivan: Chptr. 8

O'Regan, K.M. and Quigley, J.M., 1998. Where youth live: economic effects of urban space on employment prospects. *Urban Studies*, 35(7), pp.1187-1205.

Lester, T.W. and Hartley, D.A., 2014. The long term employment impacts of gentrification in the 1990s. *Regional Science and Urban Economics*, 45, pp.80-89.

Optional readings

Lena Edlund, et al. 2015. *Bright Minds, Big Rent: Gentrification and the Rising Returns to Skill*, NBER Working Paper No. 21729 (summarized in NBER Urban Digest, 2016. “Time-Starved Skilled Workers May be Driving Gentrification.”)

Meltzer, R. and Ghorbani, P., 2017. Does gentrification increase employment opportunities in low-income neighborhoods?. *Regional Science and Urban Economics*, 66, pp.52-73.

“Urban manufacturing in Brooklyn,” July 13th, 2017, *The Economist*.

11. GUEST SPEAKER

James Johnson-Piatt, Founder and CEO, Urbane Development

12. Role of Local government in growth and economic development

We distinguish across levels of government and identify criteria for when the scale of local government intervention is appropriate. We consider the merits of different kinds of economic development policies and regulations, including tax incentives and the trade-offs between people- and place-based interventions.

- a. Scale of urban benefits matters: what is the appropriate level of govt. to intervene/govern?
- b. People vs. place debate
- c. Tax incentive debate

Required readings and media

Listen to: <https://www.npr.org/2019/07/08/736546264/white-house-touts-help-for-poor-areas-but-questions-endure-over-wholl-benefit>

Oates, W.E., 1999. An essay on fiscal federalism. *Journal of economic literature*, 37(3), pp.1120-1149.

Meltzer, Rachel. 2020. “Zoning Dollars and Change,” in *Zoning: A Guide for the 21st Century*. Eds. Elliott Sclar, Bernadette Baird-Zars, Lauren Ames Fischer, Valerie E. Stahl. Routledge.

Crane, R. and Manville, M., 2008. People or place? Revisiting the who versus the where of urban development. *Land Lines*, 20(3), pp.2-7.

Bartik, Timothy, “Using Place-Based Jobs Policies to Help Distressed Communities.” *Journal of Economic Perspectives* 34(2020): 99-127.

Optional readings

Ellen, Ingrid Gould and Amy Ellen Schwartz, “No Easy Answers: Cautionary Notes for Competitive Cities.” *The Brookings Review* (2000): 44–47.

Neumark, David and Jed Kolko. 2010. "Do Enterprise Zones Create Jobs? Evidence from California's Enterprise Zone Program," *Journal of Urban Economics*, 68(1).

Zimmerman, Dennis. 1997. “Subsidizing Stadiums: Who Benefits? Who Pays?,” In *Sports, Jobs and Taxes: The Economic Impact of Sports Teams and Stadiums*, Eds. Roger G. Noll and Andrew Zimbalist. Washington, D.C.: Brookings Institution Press.

Harrison, Bennett, and Amy Glasmier. 1997. "Why Business Alone Won't Redevelop the Inner City." *Economic Development Quarterly*, 11.

IV. Land use and valuation: price gradients and spatial models for cities

13. Land rent and land use

We delve into one of the most important concepts in urban economics: land valuation. We review models that explain how firms make their location decisions within cities and how land value is influenced by the nature and intensity of its use and access to useful inputs. We start with manufacturing and commercial land.

- a. How land is priced; gradients; access; monocentric model (**intra-city)
 - Manufacturing
 - Office/commercial
- b. Exceptions to the monocentric model (remote work, polycentric cities)

Required readings and media

Read this: <https://www.nytimes.com/interactive/2021/07/07/upshot/downtown-office-vulnerable-even-before-covid.html?action=click&module=Top%20Stories&pgtype=Homepage>

O'Sullivan: Chptr. 10, 11

Florida, Richard. July 17th, 2018. “Cities and the Vertical Economy,” *CityLab*. (summary of published article below)

“The Time May be Right for Land-value Taxes,” *The Economist*. August 9th, 2018.

Optional readings

Liu, C.H., Rosenthal, S.S. and Strange, W.C., 2018. The vertical city: rent gradients, spatial structure, and agglomeration economies. *Journal of Urban Economics*, 106, pp.101-122.

Ahfeldt, Garbiel and Jason Barr. 2020. The Economics of Skyscrapers: A Synthesis. CEP Discussion Paper No 1704.

14. Land rent and land use (con.)

We introduce residential land use into the spatial location models used thus far. We refine our price gradient models and explore how they adjust when considering the uneven spatial distribution of jobs and amenities. We also consider the limits of these models and how their accuracy has shifted over time.

- a. Introduce residential land/pricing → how the monocentric model is adjusted
 - Proximity to work/leisure vs. space/affordability
 - Proximity to other amenities (schools, crime)
 - Spatial distribution of employment and residence; sorting
 - Hedonics

Required readings and media

O'Sullivan: Chptr. 13

Mieszkowski, P. and Mills, E.S., 1993. The causes of metropolitan suburbanization. *Journal of Economic perspectives*, 7(3), pp.135-147.

Florida, Richard. August 9th, 2013. "The Most Famous Models for How Cities Grow Are Wrong," *CityLab*.

Holder, Sarah. February 26th, 2021. "The True Costs of Working From Home," *CityLab*.

Optional readings

Brueckner, J.K., Thisse, J.F. and Zenou, Y., 1999. Why is central Paris rich and downtown Detroit poor?: An amenity-based theory. *European economic review*, 43(1), pp.91-107.

Lee, Sanghoon, and Jeffrey Lin. "Natural Amenities, Neighbourhood Dynamics, and Persistence in the Spatial Distribution of Income." *Review of Economic Studies* 85 (2018): 663-694.

Redfearn, C.L., 2009. How informative are average effects? Hedonic regression and amenity capitalization in complex urban housing markets. *Regional Science and Urban Economics*, 39(3), pp.297-306.

15. Government intervention in land allocation and use

The urban growth models thus far have only accounted for the decision-making of individuals and firms. However, the government plays a large role in how land use is allocated across space. We explore two examples of this: suburbanization and zoning regulation.

- a. Suburbanization/sprawl (and govt's role in producing it)
- b. Zoning and land use regulation

Required readings and media

O'Sullivan: Chptr. 16

Schuetz, J., Meltzer, R. and Been, V., 2009. 31 flavors of inclusionary zoning: Comparing policies from San Francisco, Washington, DC, and suburban Boston. *Journal of the American Planning Association*, 75(4), pp.441-456.

Blöchliger, H., Hilber, C., Schöni, O. and von Ehrlich, M., 2017. Local taxation, land use regulation, and land use: A survey of the evidence.

Jackson, Kenneth T. 1985. "The Baby Boom and the Age of the Subdivision." *Crabgrass Frontier: The Suburbanization of the United States*. New York: Oxford University Press.

Optional readings

Ingram, Gregory and Yu-Hung Hong. 2012. "Land Value Capture: Types and Outcomes," in *Value Capture and Land Policies*. Lincoln Institute of Land Policy.

Baum-Snow, N. (2007). Did Highways Cause Suburbanization? *The Quarterly Journal of Economics* 122(2), 775–805.

Schwartz, Amy Ellen, "Tax and the City: Tax Reform for a Competitive New York" in *Rethinking the Urban Agenda: Reinvigorating the Liberal Tradition in New York City and Urban America*, eds. Ken Emerson and John Mollenkopf. New York, NY: Century Foundation Press, 2001.

Jackson, Kenneth T. 1985. *Crabgrass Frontier: The Suburbanization of the United States*. New York: Oxford University Press.

V. Urban housing markets and transportation

16. Housing markets

We learn about how housing is a unique product and service. Urban housing is not monolithic and we will discuss the dimensions of heterogeneity in those markets. We review models of housing durability and change, and consider public policy interventions to affect affordability and production.

- a. What is unique about housing and its markets?
 - Filtering, durability
 - Quality submarkets
- b. Policies/interventions
 - Supply-side
 - Demand-side
- c. Case/application: Gentrification

Required readings and media

O’Sullivan: Chptr. 17

Bunten, Devin Michelle. January 17th, 2020. “Boston must bring back rent control to protect tenants.” *Boston Globe*.

Diamond, Rebecca and Jonathan Gruber. January 17th, 2020. “Housing costs are a problem in Boston and beyond, but rent control isn’t the answer.” *Boston Globe*.

Schwartz, Alex. 2021. “Trends, Patterns, Problems.” *Housing Policy in the United States*. New York: Routledge.

Schwartz, Amy Ellen, Ingrid Gould Ellen, Ioan Voicu and Michael Schill. 2006. “The External Effects of Place-based Subsidized Housing,” *Regional Science and Urban Economics*, 36(6), 679-707.

Optional readings

O’Flaherty, Brendan. 2005. “Housing: The Big Picture” *City Economics*. Cambridge: Harvard University Press.

Diamond, Rebecca, Tim McQuade, and Franklin Qian. “The Effects of Rent Control Expansion on Tenants, Landlords and Inequality: Evidence from San Francisco.” NBER Working Paper, 24181, pp. 1-18 plus conclusion. (optional)

Asquith, B.J., Mast, E. and Reed, D., 2021. Local Effects of Large New Apartment Buildings in Low-Income Areas. *The Review of Economics and Statistics*, pp.1-46.

Glaeser, Edward L. and Joseph Gyourko. “Urban decline and durable housing.” *Journal of Political Economy* 113(2005): 345–375.

Quigley, John, and Steven Raphael, “Is Housing Unaffordable? Why Isn’t it More Affordable?” *Journal of Economic Perspectives* 18(2004): 191–214.

17. GUEST SPEAKER

Matthew Resseger, Senior Economist, Boston Planning & Development Agency

18. Housing markets (con.)

19. Urban transportation

We use an economic lens to understand transportation systems in urban settings. First we look at roads and cars and how they have influenced the spatial development of cities and the costs of moving people around in personal vehicles. Then we consider the role of public transit and modal choice for residents and workers in cities.

- a. Cars and Roads
 - Congestion
 - Parking
- b. Public transit
 - Modal choice
 - Price capitalization

Required readings and media

Watch this: <https://www.youtube.com/watch?v=clAebwmdzw>

O’Sullivan: Chptrs. 18, 19

Jaffe, Eric. 2013. “Public Transit Is Worth Way More to a City Than You Might Think,” *The Atlantic Cities*.

Shoup, D., 2014. The high cost of minimum parking requirements. In *Parking issues and policies*. Emerald Group Publishing Limited. (Also, a video summarizing Schoup’s work: https://youtu.be/Akm7ik-H_7U)

Optional readings

Duranton, Gilles, and Matthew Turner, "The Fundamental Law of Road Congestion." *American Economic Review*. 2011.

Vickrey, William, "Pricing in Urban and Suburban Transport," *American Economic Review* 52(1963): 452-465.

Chatman, D.G., 2003. How density and mixed uses at the workplace affect personal commercial travel and commute mode choice. *Transportation Research Record*, 1831(1), pp.193-201.

VI. Urban challenges and conditions

20. Race and place

We grapple with the fact that the urban economic models thus far have not captured the inequality and segregation that also define cities. We consider the role of government in the creation and perpetuation of urban segregation and stress-test the standard urban economic models in the context of racial and ethnic segregation.

- a. Urban economic frameworks for neighborhood sorting and integration
- b. Role of policies/laws in making and perpetuating racial segregation
- c. How segregation affects economic outcomes and opportunities
- d. How to measure segregation

Required readings and media

Watch this: <https://www.youtube.com/watch?v=8ddQCCPhXB0>

O'Sullivan: Chptr. 15

Schertzer, A., Twinam, T. and Walsh, R.P., 2021. Zoning and segregation in urban economic history. *Regional Science and Urban Economics*, p.103652.

Helling, Amy and Sawicki, David S, 2003. "Race and residential accessibility to shopping and services." *Housing Policy Debate* 14(1-2): 69-101

De la Roca, Jorge, Ingrid Gould Ellen, and Justin Steil, "Does Segregation Matter for Latinos?" *Journal of Housing Economics*, 2017.

Optional readings

Cutler, D.M., Glaeser, E.L. and Vigdor, J.L., 1999. The rise and decline of the American ghetto. *Journal of political economy*, 107(3), pp.455-506.

Ladd, Helen F., “Evidence on Discrimination in Mortgage Lending.” *Journal of Economic Perspectives* 12(1998): 41–62.

Muñoz, A.P., Kim, M., Chang, M., Jackson, R., Hamilton, D. and Darity, W.A., 2015. The color of wealth in Boston. Federal Reserve Bank of Boston. *Available at SSRN 2630261*.

21. Neighborhoods and opportunity

We learn about models of income and racial sorting that have led to pervasive and persistent residential segregation across urban neighborhoods. We also review the empirical evidence on how this neighborhood selection (both forced and voluntary) can generate disparate life outcomes and trajectories. We build frameworks for understanding the micro-spatial foundations of economic opportunity.

- a. Spatial aspects of opportunity
- b. Tying opportunity to very localized geographies
- c. Understanding the empirical landscape and what we know about the geography of opportunity

Required readings and media

Check this out: <https://www.opportunityatlas.org/>

O’Sullivan: Chptr. 15 (review)

Galster, G. and Sharkey, P., 2017. Spatial foundations of inequality: A conceptual model and empirical overview. *RSF: The Russell Sage Foundation Journal of the Social Sciences*, 3(2), pp.1-33.

Chetty, Raj, Nathan Hendron, and Lawrence Katz. “The Effects of Exposure to Better Neighborhoods on Children: New Evidence from the Moving to Opportunity Project.” *American Economic Review*, 106(2016): 855-902.

Optional readings

Glaeser, Edward. 2011. “What’s Good About Slums?” *Triumph of the City*. New York: Penguin Books.

Ellen, Ingrid Gould, and Margery Austin Turner, “Does Neighborhood Matter? Assessing Recent Evidence.” *Housing Policy Debate* 8(4): 833–866.

Waldfogel, J., 2010. “Who Benefits Whom in the Neighborhood? Demographics and Retail Product Geography.” In *Agglomeration economics* (pp. 181-210). University of Chicago Press.

Baum-Snow, N., Hartley, D.A. and Lee, K.O., 2019. The long-run effects of neighborhood change on incumbent families. CESifo Working Paper, No. 7577

22. Climate change and sustainability

We consider the challenges of climate change for urban centers. We explore how cities, in particular, are simultaneously extremely vulnerable to increasingly frequent extreme events and also especially well-positioned to combat environmental threats. We discuss how growth and prosperity can co-exist with sustainability.

- a. Environmental costs/vulnerabilities of cities
- b. Climate advantages of cities
- c. Connection between sustainability and urban growth/prosperity/equity

Required readings and media

Check this out: <https://www.nytimes.com/interactive/2021/07/07/climate/chicago-river-lake-michigan.html?action=click&module=Top%20Stories&pgtype=Homepage>

Solecki, William. 2015. “Climate Change and U.S. Cities: Vulnerability, Impacts, and Adaptation.” *Land and the City*. Cambridge: Lincoln Institute of Land Policy.

Meltzer, R., Ellen, I.G. and Li, X., 2021. Localized commercial effects from natural disasters: The case of Hurricane Sandy and New York City. *Regional Science and Urban Economics*, 86, p.103608.

McGuire, Mary Pat. July 7th, 2021. “While We’re Considering Removing Highways, Let’s Not Overlook Pavement.” *Next City*.

Optional readings

Kahn, M.E. and Walsh, R., 2015. Cities and the Environment. *Handbook of regional and urban economics*, 5, pp.405-465.

Sun, C., Zheng, S., Wang, J. and Kahn, M.E., 2019. Does clean air increase the demand for the consumer city? Evidence from Beijing. *Journal of Regional Science*, 59(3), pp.409-434.

Kahn, Matthew, “The Silver Lining of Rust-Belt Manufacturing Decline,” *Journal of Urban Economics* 46(1999): 360-376. (optional)

Currie, Janet, and Reed Walker, “Traffic Congestion and Infant Health: Evidence from E-ZPass.” *American Economic Journal: Applied Economics* 3(2011): 65-90.

23. Urban informality

Much of what we've covered so far has assumed functioning (even if imperfect) markets for goods and services. How do the urban economic models we've discussed apply to informal activities and markets in cities? We consider the role of informal economic activity in the growth and dynamics of cities, especially outside of the U.S.

- a. Define and provide examples of urban informality
- b. How to integrate informality into economic models that are based on formal markets

Required readings and media

Listen to this: <https://www.npr.org/2012/09/18/161336760/with-hats-and-umbrellas-senegalese-fill-a-city-niche>

Portes, Alejandro and Saskia Sassen-Koob (1987) "Making it Underground: Comparative Materials on the Informal Sector in Western Market Economies." *American Journal of Sociology*. Vol. 93(1): 30-61.

Smolka, Martim. January 2003. "Informality, Urban Poverty and Land Market Prices." *Land Lines*. Cambridge: Lincoln Institute of Land Policy.

Field, E., 2005. Property rights and investment in urban slums. *Journal of the European Economic Association*, 3(2-3), pp.279-290.

Optional readings

Djankov, S., Glaeser, E.L., Perotti, V. and Shleifer, A., 2021. *Property Rights and Urban Form* (No. w28793). National Bureau of Economic Research.

Field, E., 2007. Entitled to work: Urban property rights and labor supply in Peru. *The Quarterly Journal of Economics*, 122(4), pp.1561-1602.

Fernandes, Edesio and Martim Smolka. July 2004. "Land Regularization and Upgrading Programs Revisited." *Land Lines*. Cambridge: Lincoln Institute of Land Policy.

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