Econ 330: Urban Economics

Lecture 1

John Morehouse
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Day One: Welcome!

Introduction

Me

Name: John Morehouse , **Office**: 430 PLC, **Office Hours**: M 5-6 PM, Th 9 - 9:50 AM, **Email**: jmorehou@uoregon.edu

- Third year Ph.D student. I do research in urban and environmental economics.

- Not school: I like bicycling & travel

You

- An eager and excited student ready to learn about urban economics

- A student that has passed EC201 and has at-least some recollection of what you have learned

Schedule

Today

1) **Syllabus**

2) **Intro to Urban Economics**

Upcoming

- EC201 Review Quiz on Canvas

- Letter of Intro on Canvas

- Reading

Course Policies

All information is on the syllabus, which I **strongly advise** that you read

I want us to discuss the following:

- Grades

- Course Policies

Syllabus: Grading

There are 500 points total. **Your grade will be determined by:**

- 40%: Final Exam (1x): 200 points

- 27%: Midterm Exam (1x): 135 points

- 24%: HW (4x, 6% each): 30 points each

- 4%: Book Report (1x): 20 points

- 4%: Review Quiz (1x): 20 points

- 1%: Letter of Intro (1x): 5 points

Syllabus: Grading

Q: Is there a curve?

A: Maybe

In 300 and 400 level classes, roughly 65% of the class will receive A's and B's. From the syllabus:

> Your grade will be determined relative to your peers, so during the course, I will not be able to tell you what your exact letter grade is at any point in time, because it depends on everyone's overall scores of the class.

Syllabus: Exams

There will be one midterm and one final

- **Midterm**: **Feb 11th** (week 6)

- **Final**: **Wednesday, March 18th @ 12:30**

- *Absolutely* **no makeups**

  - However, if approved (by me) you can put **all of the weight from the midterm** on the final (67%) if you must miss the midterm

  - I will only do this in **extraordinary circumstances**†

† Don't be afraid to ask if you are unsure.

Syllabus: Triumph of the City

In this class you are required to read Triumph of the City by Ed. Glaeser.

- **HW**: Occassional question from assigned reading (in addition to questions from lecture content)

- **Exams**: Ocassional question from the book (*if you do the readings*, the questions will be pretty easy)

- **Book Report**: You are **required** to turn in a book report at the end of the term

  - I will post instructions and rubric for the book report around week 3

  - The syllabus has a reading schedule. You are free to read the book at a quicker rate

Syllabus: Homework

There will be 4 written assignments throughout the term:

- Each one is worth **6% of your grade**, for a total of 24%

- You **must** write your answer on the space provided for you on the assignment sheet

  - **Automatic 50% deduction** from that assignment's score for first offense, and **100% deduction** for each time after

- **No late homework assignments** will be accepted, and no make - up assignments will be given

- **Start them early**, as they will cover *a lot* of material

Syllabus: Electronics

Electronics Policy

- **No cell-phone use during lecture**

    - Only to be used in emergencies

    - Cell phone use in non-emergency situations will result in a **1% deduction** from your **course** grade

- Laptops: allowed, but please sit in the back of the room

- Tablets are allowed for note taking

My advice: take hard-copy (or on the tablet) notes. This helps you:

1) Stay focused during lecture

2) Retain what was done in lecture

Lecture Notes

As mentioned on Canvas, I will usually post **incomplete** lecture notes within a few hours *before* lectures

- Examples won't be filled in, some definitions might be missing

- I reserve the right to stop doing this if attendance is too low

- **To reiterate**: I believe it is important (for most students) to physically write down definitions, math, and concepts

Complete slides will be posted to GitHub *sometime* after lecture[†]

[†] This might vary from class to class, but they will be posted within a week of the lecture.

EC201 Review Quiz

There is an **online review quiz** on canvas due **Monday the 6th @ midnight**. You get one try and have a maximum of 1.5 hours to complete it.

But why?

- Incentivize you to review EC201. **Low stakes**

- Will help you for rest of course

Details

- We will review on Thursday what I want you to know. Review will be similar to quiz

- Quiz will open Thursday after class

First Quiz

If you want to start studying early....

1) Be able to **solve** for **equilibrium** price and quantity in a model of linear supply and demand

- Be able to calculate consumer and producer surplus

2) Know the definition of **profit**, **total revenue**, **total cost**

- and how to calculate them (given some information)

3) Know the definition of **elasticity** and how to interpret it

Review on Thursday, I promise. Also: the the quiz will be extremely similar to our review.

This Course

This class has two fairly distinct halves:

1. **Philosophy** & **Tools**

   - Why do cities exist? Why do they grow? Why do they decline?

   - Fundamental tools of labor & urban econ (it's all supply and demand)

2. **Applications**

   - Rent Control & Minimum Wage

   - Highways and urban transportation

   - Income inequality and environmental issues

Checklist

1) **Syllabus**: ✅

2) **Intro to Urban Economics**

- **What is urban economics?**

- **What is a city?**

- **What is a model and why are they useful?**

Intro to Urban Economics

What is it?

A mashup between **geography** and **economics**.

Economics: Study of how people and firms allocate scarce resources.

- Main framework: utility & profit maximization

Geography: Studies effects of location and the environment (hydrology, climate, resources, etc.)

Economics + **Geography** : Study of how individuals and firms choose utility and profit maximizing locations, and consequences of these decisions

Intro to Urban Economics

We will study how the **distribution** of people & firms across space impacts:

- Crime 👮

- The Environment ♻️

- Income growth & Inequality 💲

We will also examine the efficacy of various **place - based policies**

- Minimum Wage

- Rent Control

- Land Use Restrictions

Cities

The majority of the US population lives in cities[†]

Questions:

1. Do you like cities?

2. What are your top 3 favorite cities (and why?)
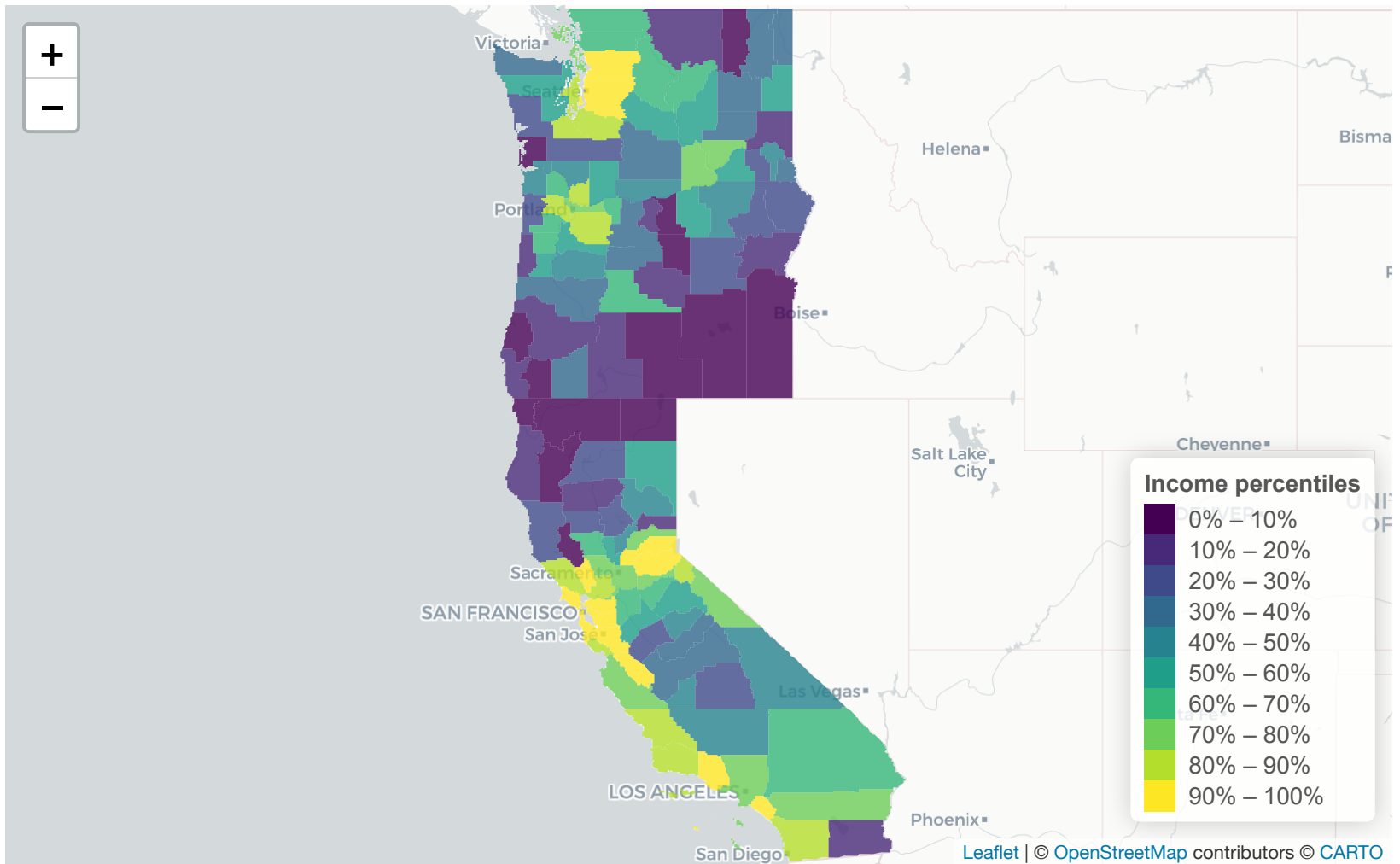
3. Are cities at odds with the natural world?

Claim

Location matters

Not convinced? Let's look at some data

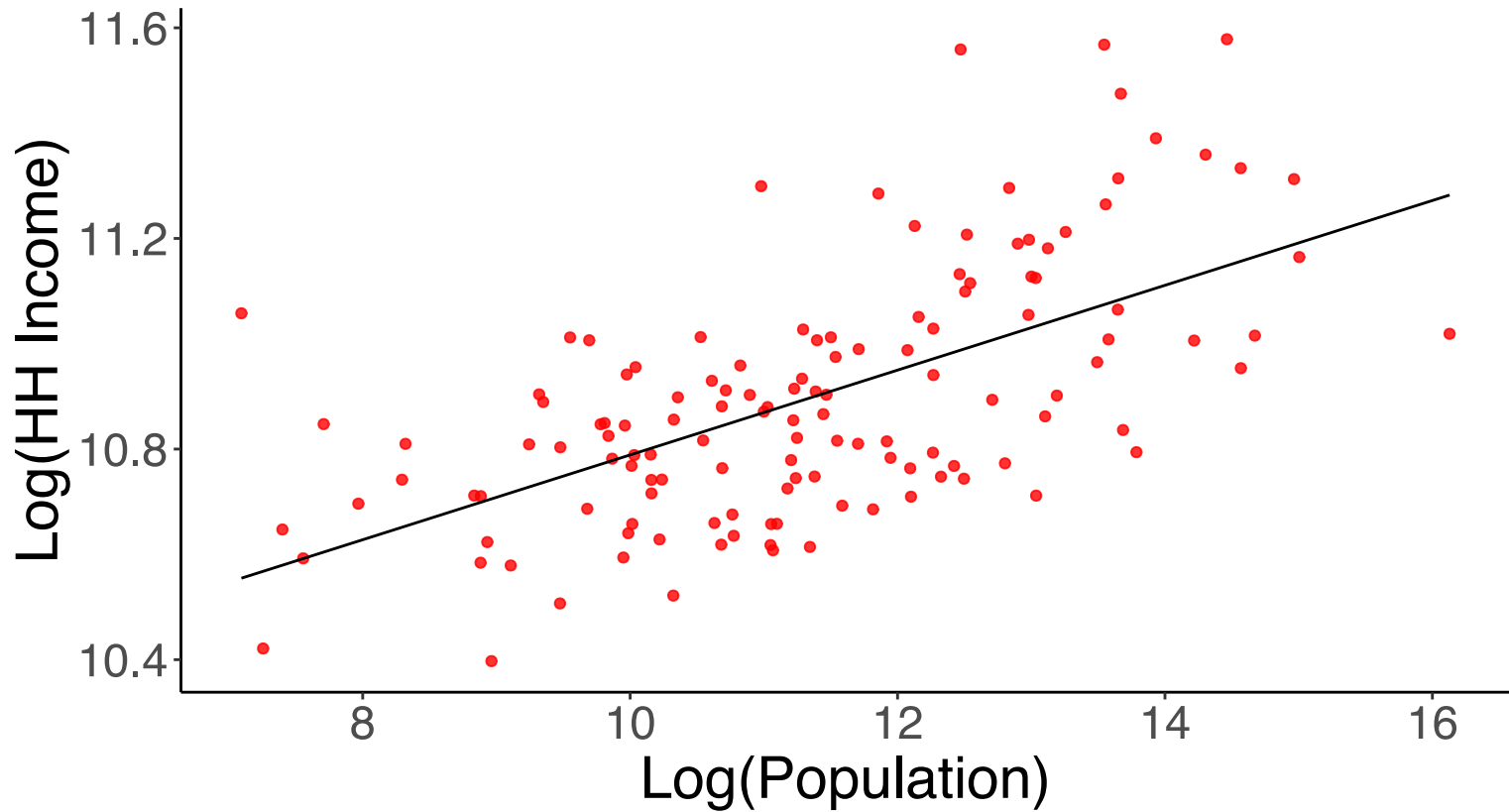[†]. 80 - ish percent, according to the Census Bureau

Wage Dispersion

Income & Population

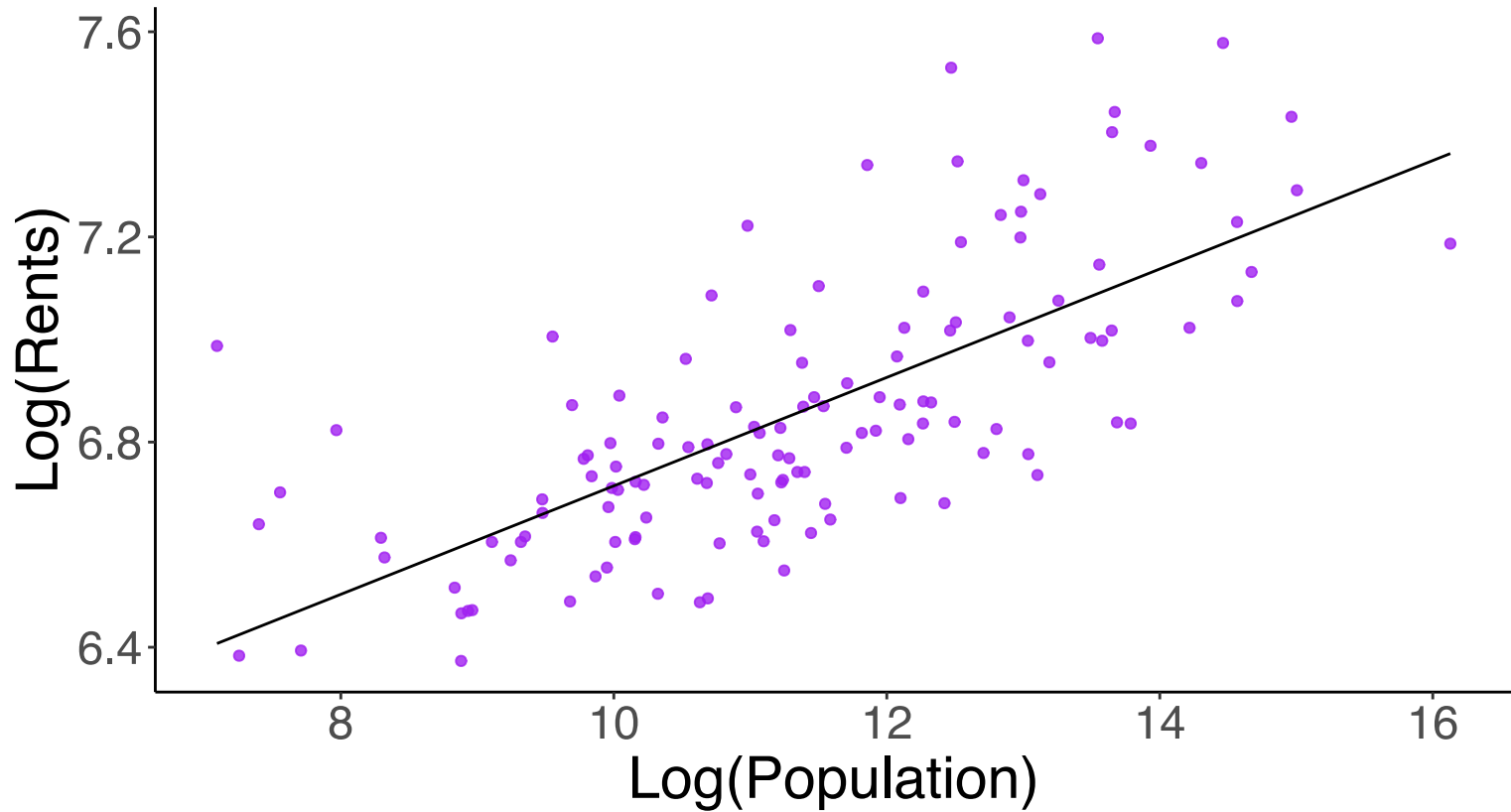West Coast HH Income and Population
Data: American Community Survey

Rent and Population
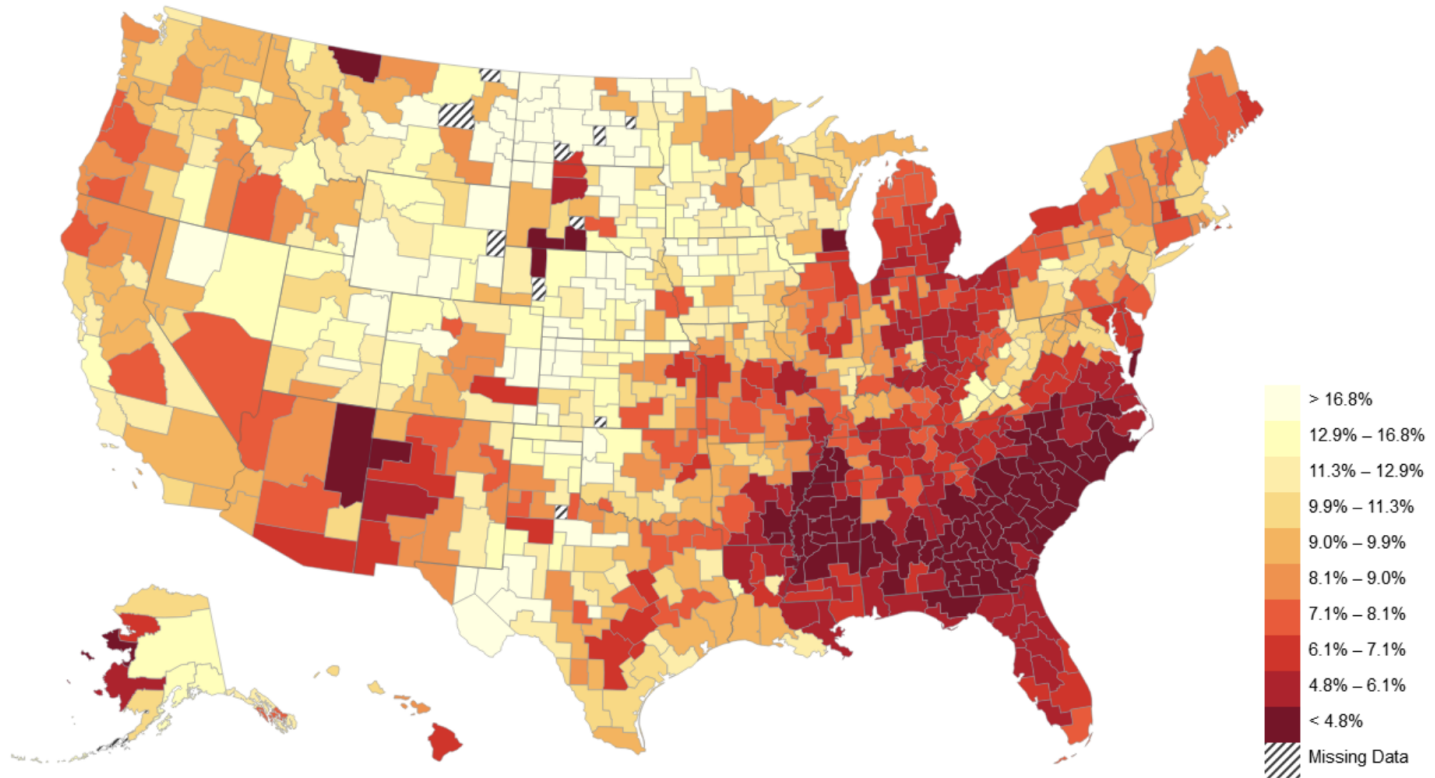

West Coast Rent and Population
Data: American Community Survey

Economic Oppurtunity

The Geography of Upward Mobility in America

Children's Chances of Reaching Top 20% of Income Distribution Given Parents in Bottom 20%

Legend:
- > 16.8%
- 12.9% – 16.8%
- 11.3% – 12.9%
- 9.9% – 11.3%
- 9.0% – 9.9%
- 8.1% – 9.0%
- 7.1% – 8.1%
- 6.1% – 7.1%
- 4.8% – 6.1%
- < 4.8%
- Missing Data

Source: The Equality of Oppurtunity Project

Carbon Emissions

CBSA	Rank	Emissions (1000 lbs)	Gas Emissions (1000 lbs)	Fuel Emissions (1000 lbs)	Electricity Use (MwH)	Electricity Conversion (1000 lbs/MwH)	Electricity Emissions (1000 lbs)
Lowest							
Honolulu, HI	1	9.65	0.30	0.07	6.10	1.52	9.29
Oxnard, CA	2	11.14	5.29	0.11	7.18	0.80	5.75
San Diego, CA	3	11.28	4.65	0.15	8.10	0.80	6.48
Los Angeles, CA	4	11.31	4.95	0.08	7.85	0.80	6.28
San Jose, CA	5	12.27	5.70	0.11	8.08	0.80	6.46
San Francisco, CA	6	12.50	5.94	0.13	8.04	0.80	6.43
Middle							
Austin, TX	33	20.96	3.87	0.13	16.71	1.01	16.96
Charlotte, NC-SC	34	21.05	4.91	0.24	15.36	1.04	15.90
Houston, TX	35	21.81	3.92	0.10	17.52	1.01	17.78
Virginia Beach, VA	36	21.98	4.51	0.43	16.46	1.04	17.04
Richmond, VA	37	22.08	4.39	0.69	16.41	1.04	16.99
Dallas, TX	38	22.33	3.89	0.13	18.04	1.01	18.31
Highest							
Tulsa, OK	65	27.61	7.54	0.16	15.67	1.27	19.92
Detroit, MI	66	27.99	14.97	0.28	11.53	1.11	12.75
Kansas City, MO-KS	67	28.90	8.77	0.18	15.69	1.27	19.95
Omaha, NE	68	29.96	13.02	0.26	13.66	1.22	16.68
Oklahoma City, OK	69	30.46	7.21	0.19	18.14	1.27	23.06
Memphis, TN-MS-AR	70	30.66	6.70	0.15	23.00	1.04	23.81

Source: Colas & Morehouse (2019)

Location, Location, Location...

So, where you live has implications for

- Your contribution to **global carbon emissions**

  - *Why does this vary across cities?*

- Your **wage** and **rent**

  - *Why does this vary across cities?*

- Your **economic mobility**

  - *Why does this vary across cities?*

Cities

So what is a city? (Pick one of the following)

1. This only a question academics would think about

2. It's complicated

3. It's not complicated. Just a lot of people living close together

   - The absence of space between people

The Census Bureau Says...

- **Urban Area**: a **densely settled geographical area** with:

    - Minimum population of **2,500**

    - Minimum density of **500 people per square mile**

- **Urban Population**: people living in **urban areas**

- **Metropolitan Area**: an urbanized area with at - least **50k population**

- **Micropolitan Area**: an urbanized area with at least **10k** but not as many as **50k** people

- **MSA**: handy abbreviation for both **metropolitan** and **micropolitan** statistical area

- **Principal City**: the **largest municipality in an MSA**

Our Toolkit

In this class we will make use of various **mathematical models**

1. What is a **mathematical model**?

    ○ A model is a desciription of a system using .... **math**

    ○ Useful to help **explain** and **predict** behavior

The Canonical Example

$$\text{Supply}: \ P(Q_s) = 10 + 5 * Q_s$$
$$\text{Demand}: \ P(Q_d) = 20 - 2 * Q_d$$

This model allows us to make predictions about prices and quantities (from the supply & demand side), *and* the **equilibrium** price and quantity

Models

1. What are the **pros** of models?

  - Allows for us to be very percise with our language

  - Gives us the ability to **predict** the various aspects of the economy

  - Can shed insight on **mechanisms** through which procceses interact

2. **Cons** of models?

  - They require assumptions

  - Claim: **Almost** all assumptions are wrong

  - **Follow up** : Not all wrong assumptions are useless

The ability of the model to **predict data** and **understand mechanisms** determines how useful it is

Models Part II

Did we make assumptions our supply/demand model? **Discuss**

$$\text{Supply}: \ P(Q_s) = 10 + 5 * Q_s$$
$$\text{Demand}: \ P(Q_d) = 20 - 2 * Q_d$$

1. **Marginal values** are diminishing and **marginal costs** are increasing **†**

   ◦ Generates downward demand and upward supply

2. Demand and Supply are **linear**

3. Demand and Supply are **deterministic**

Are these reasonable? **Discuss**

†: Marginal = Change

Checklist

1. **Syllabus**: ✅

2. **Intro to Urban Economics**: ✅

    - **What is urban economics?**

    - **What is a city?**

    - **What is a model and why are they useful?**

Planning

Next Class:

- EC201 Review

- 5 Axioms of Urban Economics

Due Soon:

- Review Quiz (**Monday the 13th** @ Midnight)

- Letter of Intro (**Tuesday the 14th** @ Midnight)

  - Instructions on canvas. Basically free points

Thanks!

🔥We survived our first day of class! 🔥

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Intro to Urban Economics

1. What is Urban Economics?

2. What is a city?

3. What is a model and why are they useful?