The Economic Implications of Housing Supply

Glaeser and Gyourko (2018)

Email: tmackay@fullerton.edu

Slides Overview

1. Paper's key question and framework

2. How to measure whether housing is "too expensive"

3. What the data show across U.S. cities

4. The economic consequences of restricted supply

5. Why this problem is hard to fix

The Central Question

Why are some cities so expensive while others aren't?

- Glaeser and Gyourko's answer = **regulation-constrained supply**.

Paper provides:

- A way to measure how housing markets are performing

- An analysis of the consequences of housing markets failing to perform well

The Framework: Tobin's q for Housing

Intuitively, measure value of assets relative to replacement cost

$$\text{P/MPPC} = \frac{\text{Housing Price}}{\text{Minimum Profitable Production Cost}}$$

- **MPPC** = what it actually costs to build a house (land, materials, labor, etc.)

- **P/MPPC > 1** suggests something is preventing new construction

If prices exceed costs but builders aren't building, something's wrong

What Goes Into MPPC?

Physical construction costs:

- RS Means data: roughly $70–$90/sq ft depending on market (economy-quality homes)

- Varies some by region, but not dramatically

Land costs:

- Vacant land sales rarely observed; imputed as 20% of (land + construction) via builder surveys

Normal profit margin:

- Builders need ~17% markup to stay in business

A Useful Benchmark

In a **competitive, unregulated market**, we'd expect:

$$P/MPPC \approx 1$$

Prices should hover around the cost of building new units.

- If they exceed that, builders enter, supply increases, prices fall back.

- If P/MPPC stays well above 1 for years, supply is constrained

What Do the Data Show?

National data from 2013 show ~74% of U.S. homes are priced at or below MPPC

- These are "cheap" markets where building isn't constrained

- But expensive markets are *really* expensive

Metro Area	P/MPPC Ratio
San Francisco–Oakland–Hayward	2.84
LA–Long Beach–Anaheim	> 2
Oxnard–Thousand Oaks–Ventura	> 2

3 Types of Housing Markets

Market Type	Example	P/MPPC	What's Happening
Declining	Detroit	< 1	Prices below construction cost
Elastic	Houston	≈ 1	Supply responds to demand
Inelastic	San Francisco	>> 1	Regulation blocks supply

The California Pattern

Coastal metros — especially California — dominate the high P/MPPC list

What constrains supply?

- **Zoning**: Density limits, single-family requirements

- **CEQA**: Environmental review for virtually any project

- **Local Permitting**: Slow, expensive, uncertain

- **Community opposition**: NIMBYism

The authors call the gap between price and MPPC the **regulatory tax**

The Regulatory Tax

The regulatory tax is the implicit cost of all the barriers to building

How big is it? For the median SF home (2013):

- MPPC = $281,690 (construction + imputed land + 17% profit margin)

- Market price = $800,000

- The "regulatory tax" ≈ $518K

Who Wins and Who Loses?

Winners:

- Existing homeowners (their assets appreciate)

- Current residents who value "neighborhood character"

Losers:

- Renters (pay higher rents) and would-be buyers (priced out)

- Workers who'd move to productive areas but can't afford to

This has **distributional consequences**

- Housing wealth becomes concentrated among those who already own

Labor Misallocation

High housing costs hurt the whole economy, not just individuals

- Productive cities (NYC, LA) have high wages *because* workers are productive there

- But workers can't afford to move there

- So they stay in less productive places

- Overall economic output is lower than it could be

How Big Is This Cost?

The paper cites research estimating GDP losses from housing constraints:

- **Hsieh and Moretti (2017):** 2-9% of GDP lost due to spatial misallocation

- That's potentially **trillions of dollars** in foregone output

Wide range reflects different assumptions about labor demand elasticity, but even the low end is enormous

- Housing regulation in a handful of cities may cost the entire country several percentage points of GDP

A Thought Experiment

Imagine housing costs in coastal California fell to national averages

What would happen?

- More workers could afford to live near high-productivity jobs

- Less time wasted commuting from the Inland Empire

- More startups could afford to locate here

- More service workers could live near their jobs

Why Don't We Just Fix This?

If restricted supply is so costly, why not just allow more building?

Political Economy Problem:

- Existing homeowners have **concentrated benefits** from high prices

- Costs are **diffuse** = spread across renters, potential movers, the broader economy

- Homeowners vote; future residents don't

- Local governments have strong incentives to restrict supply

What Would Solutions Look Like?

1. **State-level override** of local zoning (e.g., California's SB 9, SB 35)

2. **Streamlined environmental review** for housing

3. **By-right development** that removes discretionary approval

4. **Incentives** for cities to allow more housing

Key Takeaways

1. **P/MPPC ratios** measure whether prices exceed construction costs = a sign of supply constraints

2. Most U.S. housing is priced near construction cost; the expensive markets are outliers

3. **Coastal metros, especially California,** dominate the high P/MPPC list; regulation is the key factor

4. **Large economic costs** from supply restrictions (inequality, labor misallocation, lower GDP)

5. Authors argue implicit tax exceeds reasonable externality costs, but note the evidence is suggestive and the optimal tax on building is positive, not zero

6. **Political economy** makes reform difficult