Urban Mobility: Consequences and Determinants

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Cities Generate Wealth via Exchange of Things and Ideas

And this exchange is facilitated by transportation

- The metro that gets you to work
- The truck taking manufactured goods to port
- Your walk to lunch to chat about a new job with a buddy

costly trips mean for urban areas?

Today's Papers

- What are the determinants of transportation cost in urban areas?
- What are the consequences of transportation infrastructure investments?

Consequences of Transportation Investments

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Reflections

1. Pollution benefits likely understated
2. Who benefits?

1. Build It and They Will Come

- Estimates are based on short-term impact
- Land uses therefore relatively fixed
- Additional gains should occur with long-run land use changes

Subways and the Long Run

10 Largest Cities, c. 1900

1. London
2. New York
3. Paris
4. Tokyo
5. Berlin
6. Chicago
7. Vienna
8. Osaka
9. Philadelphia
10. St. Petersburg

- all with the exception of St. Petersburg have legacy subways
- very difficult to even consider a counterfactual development pattern

2. Distributional Consequences and the Policy Puzzle

- Air pollution varies within a metro area
- Can your data distinguish treated and untreated areas within cities?
- How disperse are gains?
- May highlight a policy puzzle of fixed investments
  - Suppose you initially target infrastructure to low-income areas
  - Good transportation ivestments raise land values
  - This benefits current owners
  - And makes housing more expensive for all future residents
  - Successful subways skew to the wealthy

Determinants of Transit Cost

- City is valuable only if you can get to things you need
  $\rightarrow$ see Houston or Mumbai
- We care tremendously if city potential is locked up because people and things can't get where they'd like to go

Authors bring very interesting and detailed data to bear on these questions.

Reflections

1. Disconnect between motivation and measure
2. What does your measure speak to?

1. What is Accessibility?

The underlying motivation for this analysis.

- Getting where you want to go cheaply
- A combination of
  - transit options
  - roads
  - work locations
  - home location
  - leisure locations

Measuring Transit Time with Google Maps

A Very Impressive Measurement Endeavor

- Measure time to drive
  1. around the city
  2. from one edge of the city to the other
  3. to places you might want to go – the grocery store, the doctor, etc
- Trips are generated by authors, not a representative sample of actual trips
  - most people don't drive
  - actual trips vary by metro

Why Actual Trips Matter
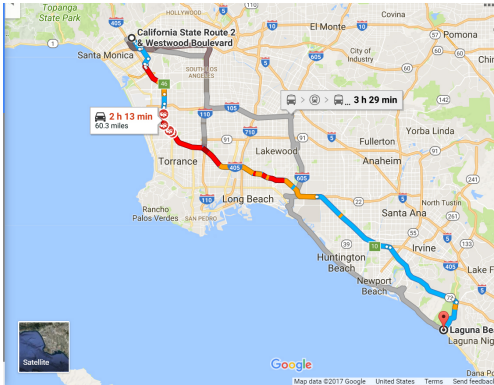
- c. 1955, this was a plausible dinner trip
- It is no longer
- Are we worse off?

2. What Does the Measure Speak To?

Measures of potential speed on selected routes tell us about

- quality of road network
- quality of traffic infrastructure
- possibly quality of road substitutes

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These are measureable and of great policy interest.