When is growth good?

Jordan Rappaport
Federal Reserve Bank of Kansas City*

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Based on “The Faster Growth of Larger, Less Crowded Locations”

*The views expressed are mine alone and do not necessarily reflect those of the Federal Reserve Bank of Kansas City or the Federal Reserve System
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The Criteria:
1. metropolitan area with pop > 1 million
2. stable and business-friendly environment
3. location that can attract and retain talent

The Prize:
- 50,000 jobs with avg salary > $100,000
- $5 billion capital investment

The Winners(?)
- New York City Metropolitan Area (pop 20.0 million, pop rank 1)
- Washington D.C. Metropolitan Area (pop 6.2 million, pop rank 6)
- Nashville Metropolitan Area (pop 1.9 million, pop rank 37)
Overview

• The fundamental determinants of metropolitan size

• The benefits and costs of size

• 2000–17: medium-sized metros grew fastest (pop 500 ths to 3 mil)

• When is growth good?
  ▶ For whom?

• Emerging trends affecting metropolitan growth

• Evaluating policy
Conclusions

• **Fundamentals determining size matter!**
  ▶ productivity; amenities; taxes
  ▶ improving fundamentals likely to benefit existing businesses and residents
  ▶ will also drive growth

• **Size itself matters!**
  ▶ Severe disadvantages to small size; limited scope to escape
  ▶ Significant costs to size above some threshold

• **Medium size balances benefits and costs**

• **Growth for its own sake is less important**
  ▶ Both benefits and costs to increased size
  ▶ Is increased size sustainable?
  ▶ Is there spare capacity?
  ▶ Who benefits?
Fundamental determinants of metropolitan size

• Business productivity
  ▶ natural harbor, central location ("Meeting in the Middle")
  ▶ transportation infrastructure, continuing education
  ▶ streamlined licensing and permitting
  ▶ test: Are businesses willing to pay higher wages?

• Amenities
  ▶ parks, museums, sports teams, the arts
  ▶ transportation infrastructure, continuing education
  ▶ great public schools!
  ▶ test: Are residents willing to pay higher home prices?

• Moderate taxes
**Benefits of Size:** Can boost productivity and amenities!

- **Sharing**
  - infrastructure (airports, seaports, rail connections, utilities, ...)
  - civic amenities (museums, zoos, performance arenas, sports stadiums, ...)
  - risk (across businesses and industries)

- **Matching**
  - workers to jobs (skills to needs, dual career couples, flexible hours)
  - residents to services (restaurants, stores, continuing education, ...)
  - businesses to services (law, advertising, banking, venture capital, ...)
  - patients to doctors (specialization)

- **Learning**
  - generation of specialized knowledge (R&D, science, medicine)
  - diffusion of knowledge: (medicine, entrepreneurship, finance, ... “the mysteries of the trade become no mysteries; but are as it were in the air”)
Costs of Size:

- STRATOSPHERIC HOUSING PRICES AND RENTS
- MADDENING TRAFFIC CONGESTION
- CONGESTION OF EVERYTHING ELSE
  - hours-long TSA waits
  - packed public transit
  - crowded sidewalks
Medium-sized metros have been growing fastest (pop., 2000–17) Also true measured by employment
Most small locations lost population

Share of locations losing population, 2000–17 (percent)

Population in 2000

- 0 to 10,000: 410 of 563
- 10,000 to 25,000: 344 of 641
- 25,000 to 50,000: 197 of 463
- 50,000 to 100,000: 73 of 223
- 100,000 to 200,000: 35 of 179
- 200,000 to 500,000: 9 of 102
- 500,000 to 3 million: 8 of 72
- ≥3 million: 1 of 15
Small locations that grew fastest benefitted from “special circumstances”
Special circumstances benefitting small locations (hard to change!)

- nice weather
  - warmer winters
  - cooler, less humid summers
  - less rainy days
- mountains
- ocean coast
- shale basin
- near medium or large metro area
- university
Largest metropolitan areas grew slowly

Population growth, 2000–17 (average annual percent)

Notes: Metropolitan areas are labeled with the name of their largest city. The $R^2$ value is for metropolitan areas with a population of at least 500,000. The solid blue line represents a prediction of locations' growth rates based on their population and estimated using all 2,258 locations. The orange dashed line corresponds to a growth rate of 0. The Denver and Boulder metropolitan areas are combined.

Sources: U.S. Census Bureau and author's calculations.

- Austin
- Charlotte
- Las Vegas
- Nashville
- San Antonio
- Sacramento
- Orlando
- Phoenix
- Riverside
- Raleigh
- Houston
- Denver
- Atlanta
- Washington
- Miami
- Boston
- Philadelphia
- Chicago
- NYC
- Las Vegas
- Charleston (SC)
- San Francisco
- Oklahoma City
- Oklahoma
- Tulsa
- McAllen
- Norfolk
- Jacksonville
- Portland (OR)
- Portland
- Dallas
- Jacksonville
- Dallas
- Phoenix
- Chicago
- Detroit
- Pittsburgh
- Cleveland
- New Orleans
- Buffalo
- Scranton
- Toledo
- Dayton
- Youngstown
- Kansas City
- San Jose
- Cincinnati
- Providence
- St. Louis
Metros with highest population density grew slowly

Population growth, 2000–17 (average annual percent)

ln (95th percentile population density in 2000) (persons/square mile)
Is growth for its own sake good?

- **Long-run size:** do benefits of being larger outweigh costs of being larger?
  - for largest metros: probably not
  - for small locations: perhaps
    - must be supported by fundamentals
    - required increase may not be attainable

- **Is there spare capacity?** (temporarily below fundamental size)
  - unemployed workers *who will be hired*
  - unfilled jobs
  - vacant homes
  - underused infrastructure
  - vacant commercial space
  - **Do benefits of short-run growth outweigh taxes/expenditures to attain it?**

- **Who benefits?**
  - existing businesses and residents or new ones?
  - high skilled or low skilled?
  - homeowners or renters
Emerging Trends

1. **Suburbanization in large metros is reaching its geographic limit**
   - lack of undeveloped tracts in desired locations is severely dampening single-family construction
   - requires shift in construction to metro interior
   - requires shift in construction to multifamily
   - requires shift in population to medium-sized metros

2. **Autonomous ride hailing**
   - reduces parking needs for multifamily housing
   - reduces parking needs for workers
   - most benefits medium-sized metros
Three criteria for evaluating a policy

1. Will it make existing businesses willing to pay higher wages?
   ▶ if yes: increases business productivity

2. Will it make existing residents willing to pay higher home prices?
   ▶ if yes: increases amenities

3. Think metropolitan!
   ▶ fundamentals typically affect the geography within which a population lives and works
   ▶ municipal fundamentals complement metropolitan ones