Average Population Growth by Median Income in 2000 (Quintiles)

Average Population Growth by County, 2000-2010
Average Population Growth by Distance to Nearest Port (Quintiles)
Figure 1: Output Per Worker and Area Size

Log Output Per Worker vs. Log population, 2000

Cities and metropolitan areas are plotted on a scatter plot, with the logarithm of output per worker on the y-axis and the logarithm of population in the year 2000 on the x-axis. The red line represents a linear regression model showing the relationship between these two variables. The plot includes points for various cities across the United States, with larger cities such as New York and Los Angeles clustered on the right side of the plot, indicating higher output per worker associated with larger populations.
The Central Paradox

• Why is it that in an era in which transportation and communication costs have virtually vanished, cities have become more important than ever?

• Urban resurgence is visible in high income levels, robust housing prices, and a concentration of innovation in urban areas.

• This is even clearer in the developing world.
The MindTree campus in Bangalore is a pristine and elegant flat-world phenomenon that thrives by connecting smart people from India and around the world. MindTree Ltd.
Cities are so monumental that we easily forget how fast they can fall—and rise. In the 1970s, New York verged on bankruptcy: President Ford refused to bail it out (left), and President Carter toured the grim ruins of the South Bronx (above). Three decades before these iconic images, Gotham had been an urban paragon, and three decades after them, it is again.

[Art 1:] New York Daily News Archive / Getty Images
[Art 2:] Teresa Zabala / The New York Times / Redux Pictures
The Chicago Home Insurance Building, built in 1885, is widely considered the world’s first metal-framed skyscraper. This technology would come to dictate the shape of most cities in the twentieth century and beyond.

*Chicago History Museum/Getty Images*

Until nearby commercial structures began to dwarf it in 1890, Trinity Church had been New York’s tallest building for forty years. The two buildings to the church’s left held that honor for thirty years until they were destroyed in a terrible attack that ultimately illustrated the resilience of a great city.

*Jeff Greenberg/World of Stock*
The Decline of the Costs of Moving Goods

![Graph showing the decline of railroad revenue per ton mile from 1890 to 2000.](image)

- **Y-axis:** Dollars per Ton Mile (Real)
- **X-axis:** Year
- **Title:** Railroad Revenue per Ton Mile
Average Population Growth by Average January Temperature (Quintiles)

Average Population Growth by County, 2000-2010

- Quintile 1
- Quintile 2
- Quintile 3
- Quintile 4
- Quintile 5
The Woodlands, outside Houston, shows how much more luxurious and sylvan large-scale suburban development has become since Levittown. Unfortunately, the expansion of the exurbs has lead to more carbon intensive lifestyles. All that greenery is really pretty brown.

© Ted Washington [per permission grant]
Rebuilding Around the Car

• The car was always going to be attractive (average commutes of 24 vs. 48 minutes), but we didn’t have to deliver such subsidies (90%)
• Baum-Snow’s work shows that each new highway reduced city population by 18%
• Central city pop would have gone up by 8% without it.
• Added subsidies for homeownership which are basically bribes to leave urban apartments
Detroit's 1967 riot destroyed more than two thousand buildings and came to symbolize the decline of that once-great city.  *Rolls Press/Popperfoto/Getty Images*
<table>
<thead>
<tr>
<th>City</th>
<th>1950 Pop.</th>
<th>2000 Pop.</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>New York</td>
<td>7,891,957</td>
<td>8,008,278</td>
<td>+1.5 %</td>
</tr>
<tr>
<td>Chicago</td>
<td>3,620,962</td>
<td>2,896,016</td>
<td>-20%</td>
</tr>
<tr>
<td>Philadelphia</td>
<td>2,071,605</td>
<td>1,517,550</td>
<td>-27%</td>
</tr>
<tr>
<td>Los Angeles</td>
<td>1,970,358</td>
<td>3,694,820</td>
<td>+87%</td>
</tr>
<tr>
<td>Detroit</td>
<td>1,849,568</td>
<td>951,270</td>
<td>-52%</td>
</tr>
<tr>
<td>Baltimore</td>
<td>949,708</td>
<td>651,154</td>
<td>-32%</td>
</tr>
<tr>
<td>Cleveland</td>
<td>914,808</td>
<td>478,403</td>
<td>-48%</td>
</tr>
<tr>
<td>St. Louis</td>
<td>856,796</td>
<td>348,189</td>
<td>-60%</td>
</tr>
<tr>
<td>Washington</td>
<td>802,178</td>
<td>572,059</td>
<td>-29%</td>
</tr>
<tr>
<td>Boston</td>
<td>801,444</td>
<td>589,141</td>
<td>-26%</td>
</tr>
</tbody>
</table>
Detroit tried to reverse its decline with foolish investments like its People Mover, which here glides over essentially empty streets.

*Dennis MacDonald/ World of Stock*
Two Policy Questions

• I can see little case for the continuing Federal obsession with homeownership.
  – Risk-enhancing, regressive, bad for the environment
• But transit policy is less clear. The price of Federal transit support is highways.
• And its not always obvious that Federally subsidies transit projects are all that wise.
• “Defederalizing our transport system would help transit compete with the automobile.” J.O.N.
Fig. 1. Treatment effect of the change in distance to rail transit on the change in all transit use.
From his experience on Wall Street, New York’s Mayor Michael Bloomberg learned the value of face-to-face connection, and he turned City Hall into a wall-less bullpen that enables the speedy flow of information.

Copyright City of New York, Used by Permission of the Office of the Mayor, City of New York
The Rebirth of Smart Cities

- Some erstwhile manufacturing centers continue to decline, while others reinvent.
- Computers in Seattle and S.F.  Biotech in Boston and Minneapolis
- Finance in New York and an urban chain of ideas
  - Understanding risk and return with data
  - The sale of riskier assets (Milken)
  - The use of risky assets to restructure companies (KKR)
  - The nationwide sharing of risk (Ranieri and MBSs)
  - The sale of data tools (Bloomberg)
Figure 7:
Change in Population, 1970-2000
by Quintile of Percent College Graduates, 1970

Source: U.S. Census Bureau
Figure 4:
Population Growth for MSAs in the Northeast and Midwest

<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>0 - 7.5%</td>
<td>8%</td>
</tr>
<tr>
<td>7.5% - 9.5%</td>
<td>15%</td>
</tr>
<tr>
<td>9.5% - 11%</td>
<td>15%</td>
</tr>
<tr>
<td>11% - 15%</td>
<td>20%</td>
</tr>
<tr>
<td>15% - 31%</td>
<td>53%</td>
</tr>
</tbody>
</table>

Data from the United States Census
Figure 4

Log Wage Residual 2000

Fitted values

2000 Share of Skilled Workers
Chinitz: Contrasts in Agglomeration: New York and Pittsburgh
Figure 10:

Average Employment Growth, 1977-2000
by Quintile of Average Firm Size, 1977

Source: County Business Patterns, 1977 and 2000
Change in P.C. GDP 2000-2009

Avg. Firm Size

North Da
South Da
Oklahoma
Wyoming
Alaska
Montana
Maine
Vermont
New York
Arkansas
Iowa
Louisiana
Colorado
New Mexico
Washington
Florida
New Hampshire
Delaware
Kentucky
Virginia
Ohio
Indiana
Illinois
Tennessee
Nevada
Michigan
Pennsylvania
Minnesota
Wisconsin
Arizona
Georgia
Missouri
South Carolina
North Carolina
Virginia
California
Oregon
Hawaii
A man transports children through the bustle—and fetid streets—of Mumbai’s Dharavi slum. Conditions like this are similar to those that faced many residents of Paris, London, New York, and other large cities in the nineteenth century.  Prashanth Vishwanathan / Bloomberg / Getty Images
New York City’s Department of Health shows the timeline of the city’s mortality rate, which sharply dropped with the provision of clean water in the nineteenth century.

*New York City Department of Health and Mental Hygiene*
Singapore’s streets move swiftly, thanks to a congestion-pricing system that electronically charges drivers for the social costs of their motoring.

Land Transport Authority of Singapore
(Four-year moving averages)

○ Manhattan permits, units
△ Real housing prices
The great urbanist Jane Jacobs looks none too happy with the tall buildings surrounding her. She argued vigorously against such high-rises and in favor of a low-slung cityscape like that of New York’s Greenwich Village. Her arguments have not all proven correct.

Bob Gomel/ Time & Life Pictures/Getty Images
Figure 13: Median Housing Values in 2005 and Permits 2000-2005 Across MSAs

Source: U.S. Census Bureau
Mumbai has recently begun building up, but the city is still short, expensive, and congested because of decades of overrestricting height.  

*Scott Eels / Bloomberg / Getty Images*
Figure 1: Relationship Between Gasoline Consumption and MSA Size
<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Emissions from Driving</td>
<td>Emissions from Public Transportation</td>
<td>Emissions from Home Heating</td>
<td>Emissions from Electricity</td>
<td>Total Emissions</td>
</tr>
<tr>
<td>Log(Income)</td>
<td>-2514</td>
<td>1193</td>
<td>1084</td>
<td>-2337</td>
<td>-2573</td>
</tr>
<tr>
<td></td>
<td>(411)</td>
<td>(285)</td>
<td>(468)</td>
<td>(1362)</td>
<td>(1489)</td>
</tr>
<tr>
<td>Log(Population)</td>
<td>-2514</td>
<td>1193</td>
<td>1084</td>
<td>-2337</td>
<td>-2573</td>
</tr>
<tr>
<td></td>
<td>(411)</td>
<td>(285)</td>
<td>(468)</td>
<td>(1362)</td>
<td>(1489)</td>
</tr>
<tr>
<td>Share of MSA Employment within 5 Miles of the City Center</td>
<td>-13079</td>
<td>2587</td>
<td>4215</td>
<td>-21618</td>
<td>-27896</td>
</tr>
<tr>
<td></td>
<td>(2432)</td>
<td>(1690)</td>
<td>(2770)</td>
<td>(8068)</td>
<td>(8817)</td>
</tr>
<tr>
<td>January Mean Temperature</td>
<td>-71</td>
<td>-4</td>
<td>-191</td>
<td>-15</td>
<td>-280</td>
</tr>
<tr>
<td></td>
<td>(17)</td>
<td>(12)</td>
<td>(19)</td>
<td>(56)</td>
<td>(62)</td>
</tr>
<tr>
<td>July Mean Temperature</td>
<td>107</td>
<td>-11</td>
<td>-92</td>
<td>612</td>
<td>615</td>
</tr>
<tr>
<td></td>
<td>(39)</td>
<td>(27)</td>
<td>(44)</td>
<td>(128)</td>
<td>(140)</td>
</tr>
<tr>
<td>Constant</td>
<td>46439</td>
<td>-27651</td>
<td>25966</td>
<td>-30688</td>
<td>14056</td>
</tr>
<tr>
<td></td>
<td>(20068)</td>
<td>(13940)</td>
<td>(22857)</td>
<td>(66569)</td>
<td>(72749)</td>
</tr>
<tr>
<td>Observations</td>
<td>66</td>
<td>66</td>
<td>66</td>
<td>66</td>
<td>66</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.56</td>
<td>0.38</td>
<td>0.73</td>
<td>0.41</td>
<td>0.41</td>
</tr>
</tbody>
</table>
Policy Challenges Ahead for the U.S.

- The need to rethink our fetish for subsidizing home-ownership.

- The need to rethink our fondness for subsidizing highways in low cost areas.

- The challenges of urban schools.