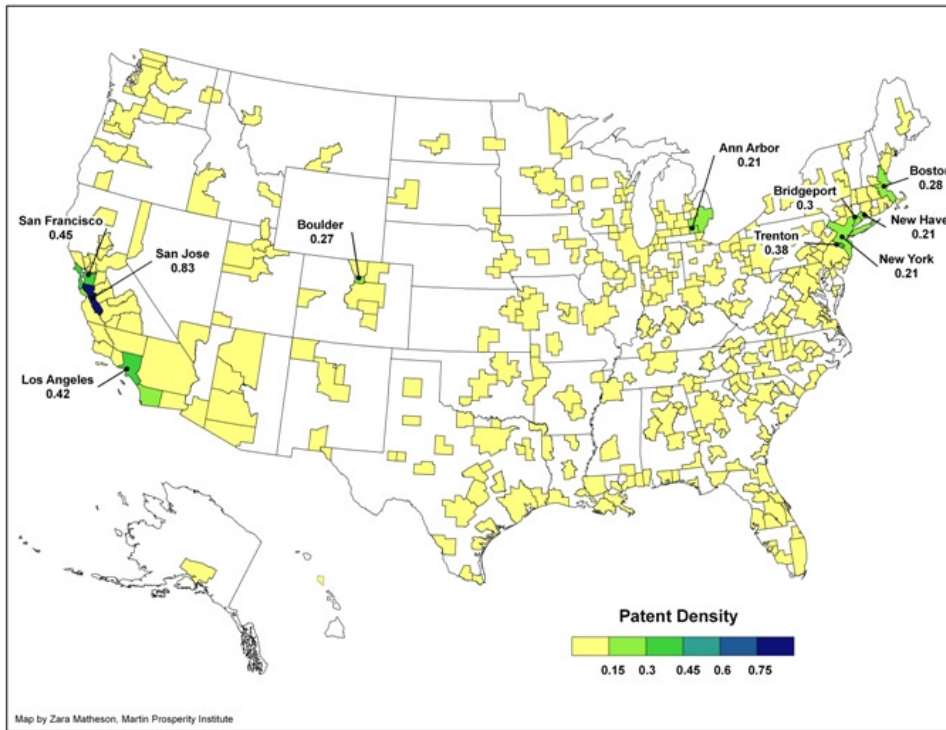
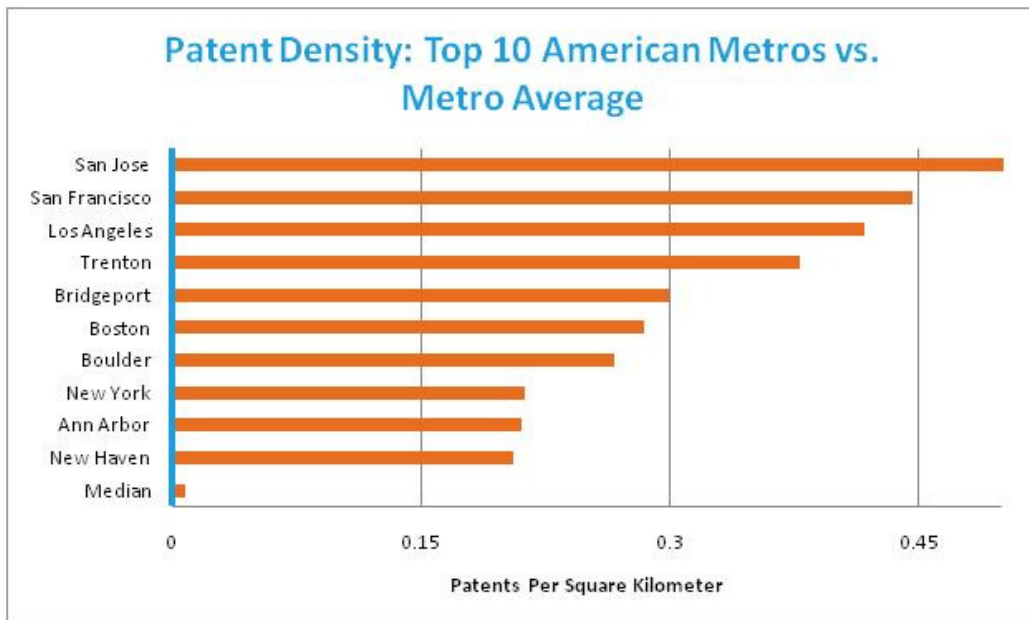


# U.S. Innovation Density

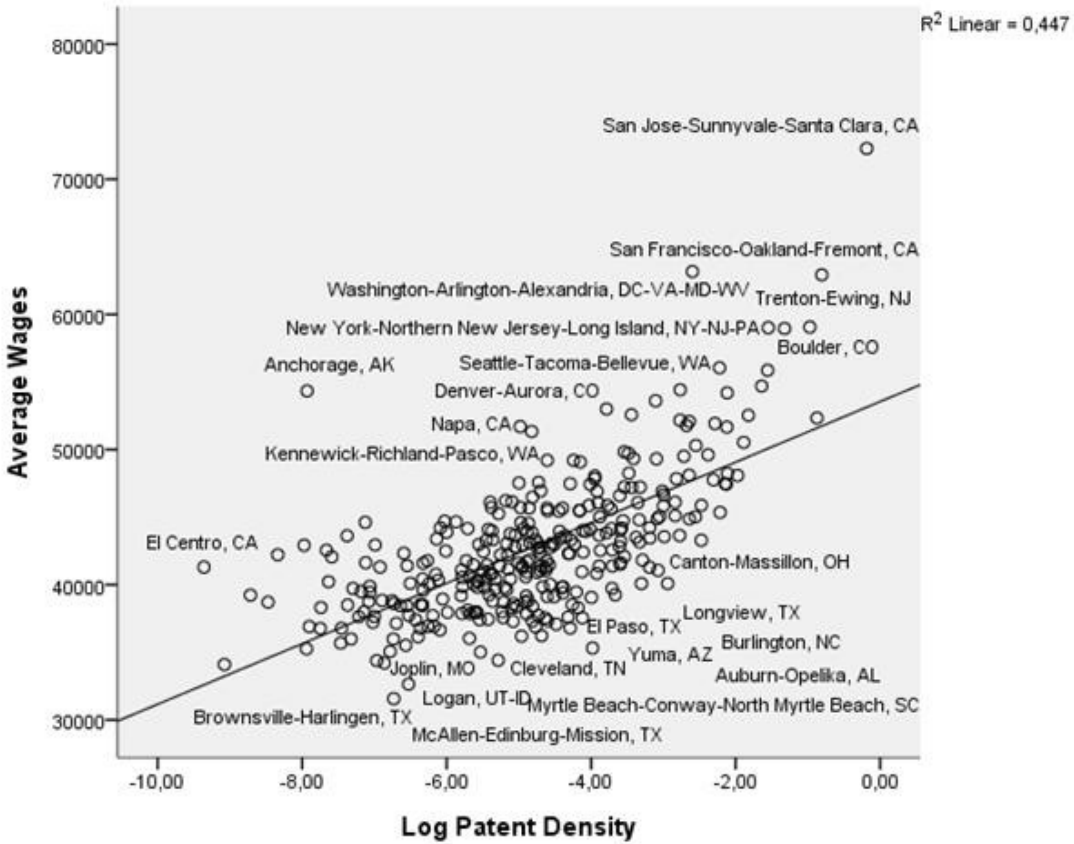
Our measure of innovation density is patents per square kilometer. The map below shows the density of innovation based on this measure. The median density of innovation is .008 patents per square kilometer. The densest metros have more than .4 patents per square kilometer, while the least dense have fewer than .001.



The chart below shows the top 10 metros in terms of density of innovation. The density of innovation in these metros ranges from 25 to more than 100 times the national norm.



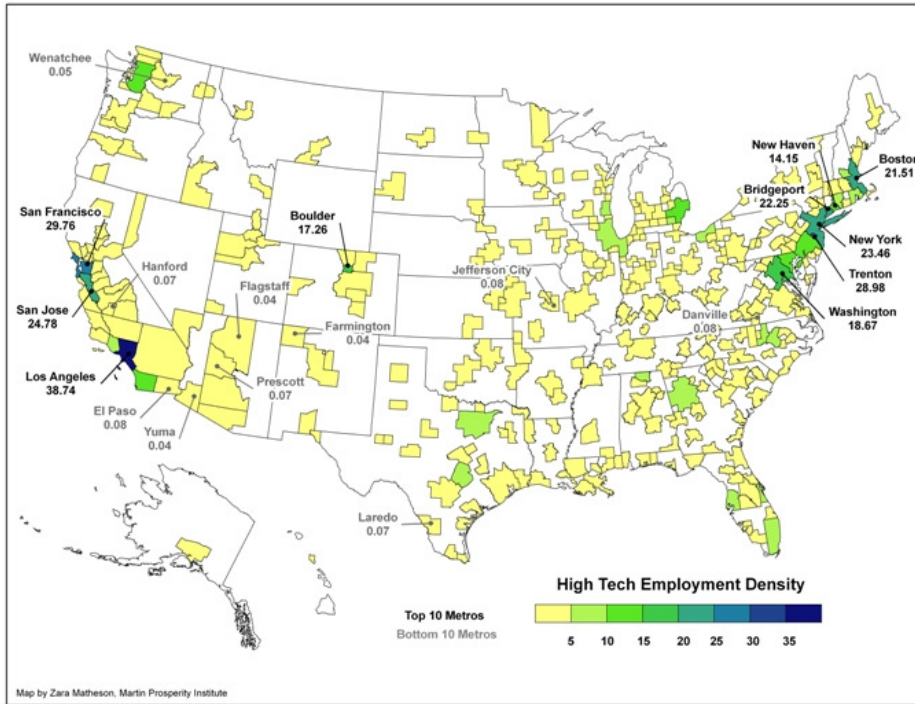
The density of patents is closely associated with key regional economic outcomes such as regional wages (.668), regional incomes (.588), and regional economic output (.459). (As usual, I point out that these correlations only suggest associations between variables. They do not specify any causation or make any claims about the direction of causality. Other intervening variables may come into play).



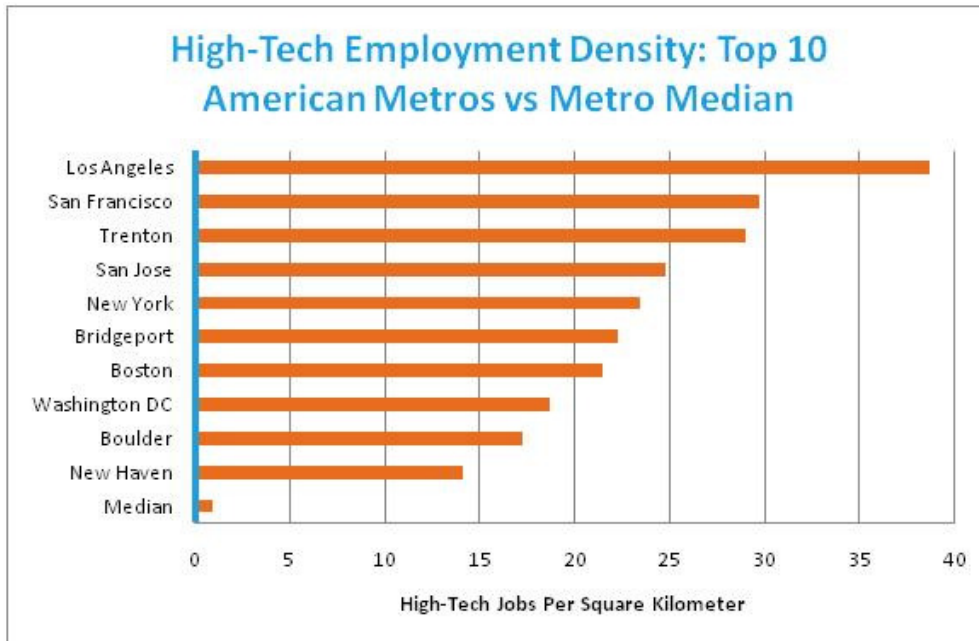
The scattergraph above plots the relationship between innovation density and regional wages – a key indicator of regional wealth and productivity. The close adherence of the observations to the fitted line suggests a close association between the two. Anchorage, Washington, D.C., Boulder, Trenton, Fremont, Napa, and, of course, San Jose are all located above the line – showing even higher wages than their density of innovations would predict. Most of these places are among the most innovative in the country.

# High-Tech Employment Density

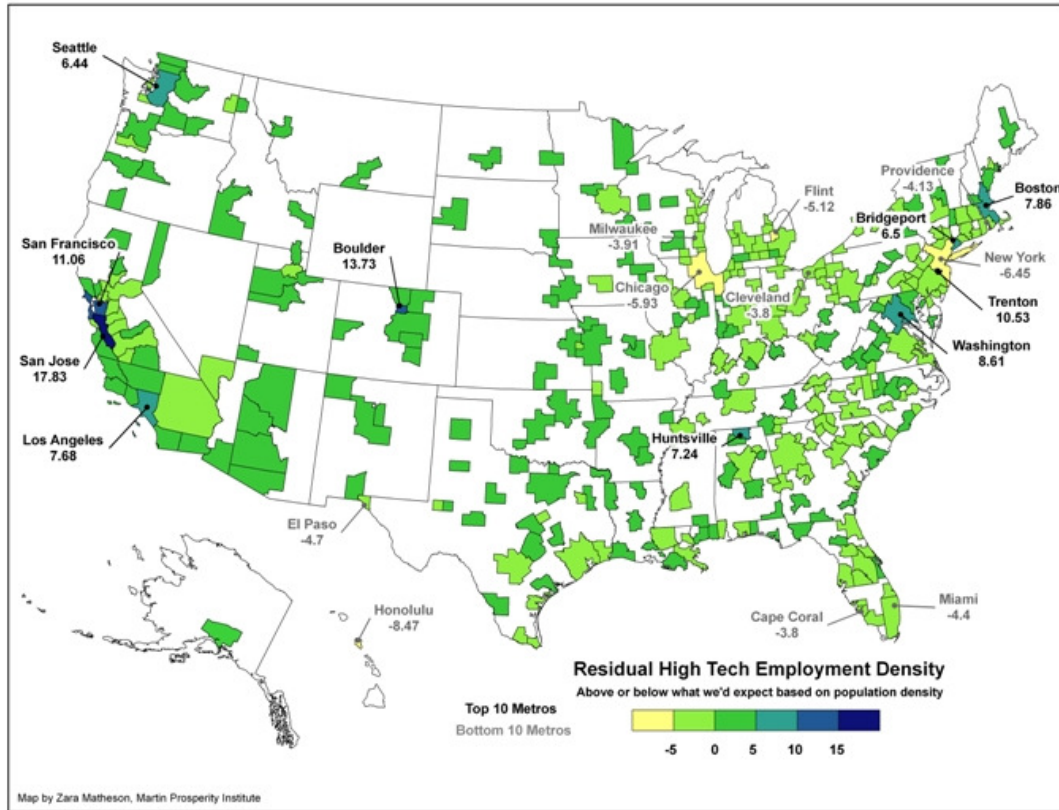
The map below shows the density of high-tech employment for U.S. metros. The median density of high-tech employment across all U.S. metros is less than one (.901) high-tech worker per square kilometer. The densest metro has nearly 40 high-tech employees per square kilometer, while the least dense have fewer than .1 high-tech workers per square kilometer.



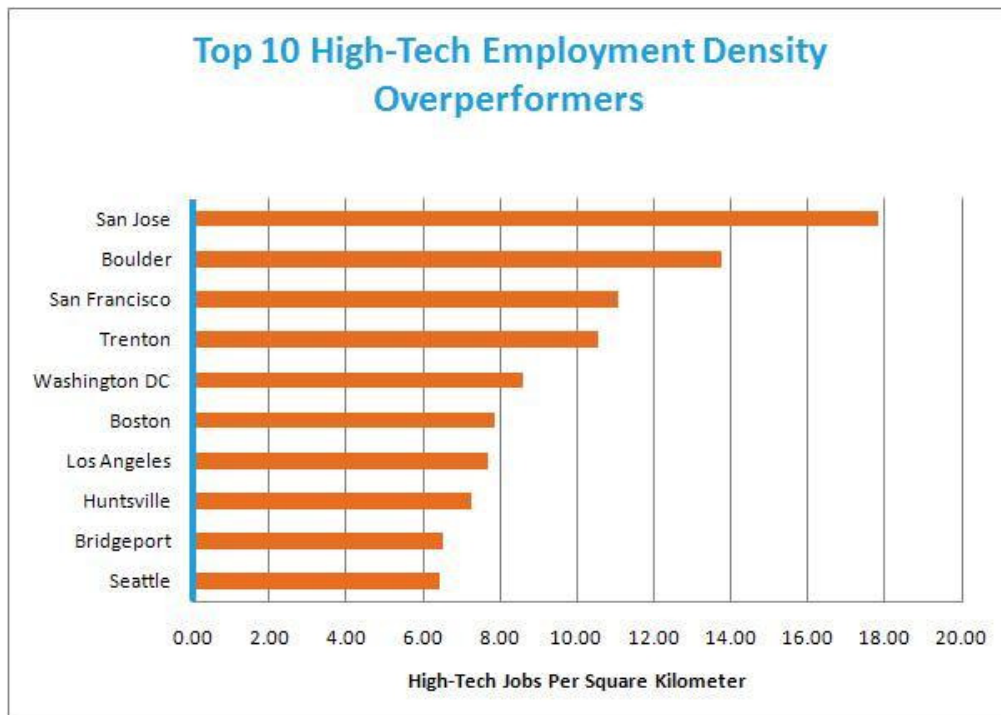
The next chart shows the top 10 metros in terms of density of high-tech workers. The density of high-tech workers in these metros ranges from 15 to 42 times the median for all metros.



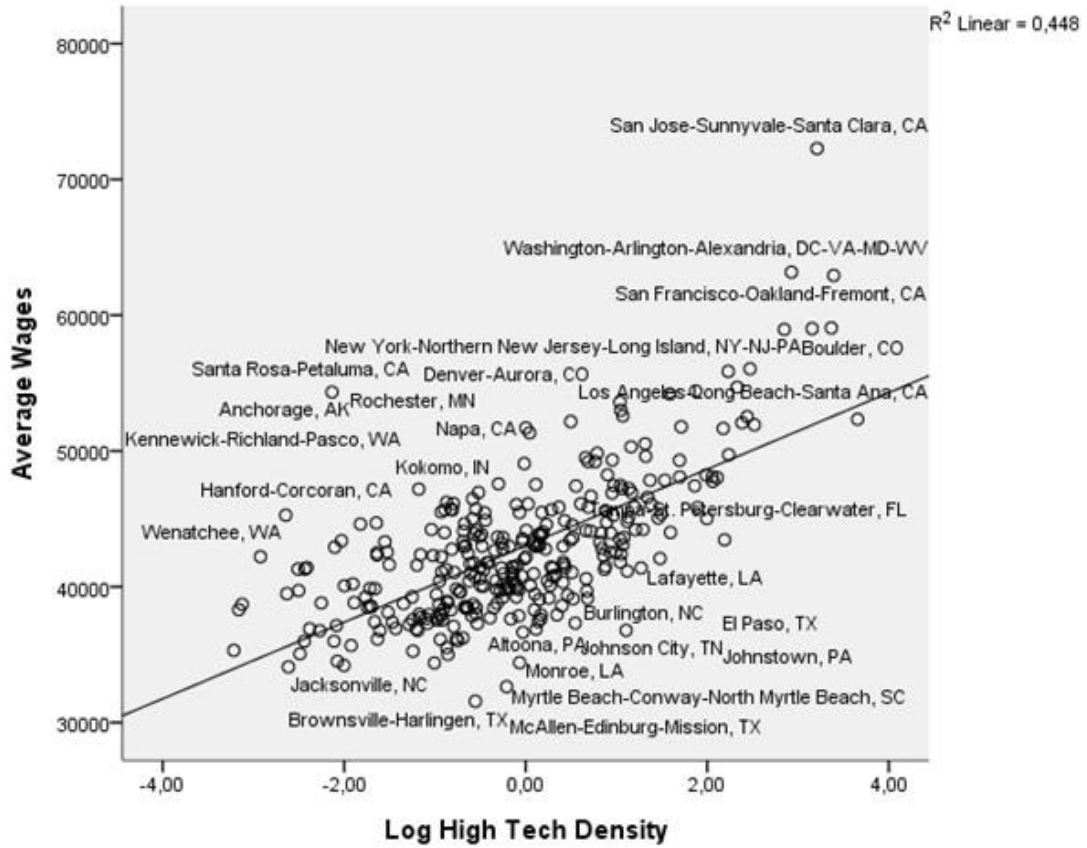
The next map shows the density of high-tech employment compared to what we'd expect given their population density based on a residual analysis.



The next chart shows the 10 metros which have the highest density of high-tech employment compared to what their population density would predict.



The scattergraph below plots the relationship between high-tech density and wages. San Jose, Washington, D.C., and San Francisco are all well above the line.



Source: The Creative Class blog, *The Density of Innovation* by Richard Florida, found at: [http://www.creativeclass.com/creative\\_class/2010/09/22/the-density-of-innovation/](http://www.creativeclass.com/creative_class/2010/09/22/the-density-of-innovation/)