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*We become smart by being around other smart people... Density helps the process of intellectual exchange by bringing people close to one another.*

*VIEWPOINT*

*The case for*

# *DENSE CITIES*

*by Edward Glaeser*

**E**dward Glaeser argues that dense cities hold the key to more productive, innovative and sustainable communities. Prof Glaeser is the Fred and Eleanor Glimp Professor of Economics at Harvard University, and has published dozens of papers on cities, economic growth, and law and economics. His work has focused on why cities grow and cities as centres of idea transmission. His bestseller book *Triumph of the City: How our Greatest Invention Makes Us Richer, Smarter, Greener, Healthier and Happier* captures his years of research on cities. Prof Glaeser is Director of the Taubman Center for State and Local Government, and Director of the Rappaport Institute of Greater Boston.

Cities exist because people value proximity to other people, to employers and to urban amenities. Density reduces distances and provides easier access to everything the city has to offer. Building up can alleviate traffic, reduce housing shortages and even help the environment, which is why cities need to embrace, not scorn, taller buildings.

A vast amount of research documents a robust connection between area level density and productivity. Within the United States, incomes typically go up by around 6% as density doubles, holding individual age and education constant. To address the worry that productivity causes density rather than the reverse, researchers like Stuart Rosenthal and Gilles Duranton have found that pre-existing environmental features that support build up, such as the presence of bed rock, also correlate to higher incomes.

My own work on density in Asia finds an even stronger link between density and productivity in China and India. Across urban areas within India, incomes increase by 12% when density doubles. In China, incomes increase by around 20% when density doubles. This is not the result of recent policies, for areas that were dense during the Ming period are dense today and are also more productive. Singapore is a striking example of the link between density and productivity, for it is both the second densest country in the world and according to some data sources, the country with the world's highest income levels.

While researchers typically agree that density increases incomes, there is less of a consensus about why density creates productivity. Some

credit the ease of buying and selling goods and services. Others focus on the flow of ideas between people who are physically connected to one another. This latter hypothesis explains why skills are so important to urban success, and why highly skilled, presumably information intensive, industries tend to locate disproportionately in urban cores.

The connection between density and idea transmission helps us to understand why globalisation and information technology seem to be making cities more, not less, important for the global economy. These forces have increased the returns to being smart and to innovation, which has been documented in hundreds of studies showing the rising returns to skill. We become smart by being around other smart people. Innovators typically borrow the ideas of others. Density helps the process of intellectual exchange by bringing people close to one another.

Density has advantages beyond productivity. Density makes it easier to go out to a restaurant or a concert or a museum. The large customer base that exists within a dense area makes it more attractive for entrepreneurs to start local



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businesses, which creates a virtuous circle where density engenders local amenities, and then those amenities attract more density.

One potential downside of urban success is that space can become extremely expensive, but density helps alleviate that risk as well. Building up means more usable space on any given plot of land. If we build taller towers, we have more apartments and office space to rent. Extra supply of space helps keep rents low. Attractive cities like London and Paris that have limited height through land use restrictions have often seen sky-high prices that ensure that the city is affordable only to the mega-rich.

Of course, skyscrapers will never be all that cheap, because high-rise dwelling are expensive to build. However, even when lower income individuals can't afford skyscrapers, providing more housing supply still helps the poor because wealthier people can live in a tall, new building, instead of crowding and gentrifying older, less dense neighbourhoods that can continue to house the poor.

There are other downsides of density. Waste and water management become more difficult in high-density areas. In some cases, street crime also increases in dense places. Local environmental issues, such as noise and polluted air, can also increase with density. But all of these urban problems can be mitigated with effective public management. Singapore has led the world in developing water solutions for dense places. Street crime can be handled with effective policing and appropriate regulations can limit noise and noxious gases.

Density is sometimes also associated with traffic congestion, but that link is ambiguous. Certainly, if many people drive on a limited set of roads, that will slow cars down. However, density also means that people are driving shorter distances, and that will alleviate traffic congestion. Once again, traffic congestion is best mediated by good policies, such as Singapore's Electronic Road Pricing, that effectively charge individuals for the social costs of driving, including congestion.

Indeed, the impact that density has on driving is one of the two main reasons why density is a great boon to the global environment. We use less energy and emit less carbon, when we take public transportation

or even if our drives our shorter. Density also typically means that people live in smaller dwelling units, and that means less home energy use for heating and cooling. It requires less electricity to air condition a small urban apartment than a large suburban home.

Governments shouldn't force density on people or firms. Some people strongly prefer to live in areas with more land, and they should be free to make that choice as long as they pay for the full social costs of that decision. Some companies, especially manufacturing firms, should be located in areas where land is cheap, away from large population centres. While there are some older areas that deserve preservation, cities need to change and evolve if they are to prosper. They need new homes and workspaces to accommodate a new era. Density is the best way of allowing more people to come and enjoy the benefits of being in a city.



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