

Point of Contention: A Denser Future?

For this issue's Point of Contention, we asked four housing economists with substantial knowledge of the topic to argue for or against the following proposition—"In 40 years, the average person will live closer to her neighbors and farther from the ground than she does today."

Changes in Urban Population Densities Over the Next 40 Years

Nathaniel Baum-Snow

Brown University

Although the many forces at play will push either for or against increases in residential densities, the current institutional and market environments in the United States and the world, examined in the context of empirical evidence on reasons for urbanization and changes in urban form, point most likely toward increased urban densities in the years to come. In making my case that higher population densities are most likely, I will discuss in turn the most important mechanisms that are likely to shape human land use patterns in the coming years. I first consider forces that influence city structure for existing city residents and firms, taking employment locations and urban infrastructure as given. I then consider infrastructure, local amenities, and forces that influence firm location choices. In closing, I consider the urbanization process and the influence of a rising world population.

Rising wage income increases both the value of commuting time and the demand for space. As is discussed in Glaeser, Kahn, and Rappaport (2008), rising wages cause urban densities to increase only if the income elasticity of demand for space is sufficiently low. Consensus empirical estimates indicate that this elasticity is this low. Since the early 1980s, we have seen rapid wage increases for those with incomes above the 50th percentile of the wage distribution and, consequently, an increasing fraction of the population with very high values of commuting time. As shown in Baum-Snow and Pavan (forthcoming), these changes have been especially pronounced in larger cities. This phenomenon helps explain the remarkable amount of gentrification and residential population growth we have seen in almost all U.S. cities' downtowns since 2000. Even struggling cities like Detroit and Cleveland have experienced an influx of high-income residents in search of short commutes into their downtowns.

Increases in women's labor force participation rates since the early 1970s and declines in fertility rates have reinforced increases in demand for the most densely developed space. As women have entered the labor force, a greater fraction of the population values commuting time, which provides an incentive for more people to live closer to work. Children do not commute very far, and thus contribute essentially zero to households' value of commuting time. Children do contribute to households' demand for space, however. The decline in the U.S. fertility rate from its peak of 0.122 births per woman of childbearing age in 1967 to only 0.065 births per woman today has markedly reduced households' demand for space and their associated demand for suburban living.

One of the most important changes to urban areas worldwide has been the construction of high-speed, limited-access highways. As demonstrated in Baum-Snow (2010, 2007), these highways promoted an enormous amount of urban residential and employment decentralization between 1950 and 2000 in U.S. cities. Urban highway construction has almost completely ceased in U.S. cities, however, with similar construction trends in most other industrialized nations. Several cities have even torn down highways. Therefore, this mechanism for reduced urban densities is a thing of the past in most countries, although China is a notable exception (Baum-Snow et al., 2012). Instead, cities in industrialized countries continue to invest robustly in public transportation systems, which encourage high residential density (Baum-Snow and Kahn, 2005). Moreover, higher gasoline prices, which are not expected to recede, have encouraged less driving and shorter commutes (Molloy and Shan, forthcoming).

An additional force that has precipitated decentralization in many U.S. urban areas is the declining consumer amenity value of cities. Baum-Snow and Lutz (2011) provide evidence that declines in school quality for many public school students has led to decentralization of White families in particular. Cullen and Levitt (1999) provide evidence that rising crime rates have led to urban decentralization. Albouy (2012), however, provides evidence that urban quality of life has recently rebounded: public school quality has at least stabilized, crime rates have declined and remained at historic lows, and the central city decay of the 1960s and 1970s has begun to reverse. Given these recent experiences, it appears unlikely (although still possible) in the near future that city amenities will decline sufficiently enough to again reduce demand for urban living.

In the past century, employment densities declined along with residential densities. Some of this decline is explained by transportation and telecommunications infrastructure expansions, which are now largely complete. Some of the decline results from the close structural links between residential and employment locations. It may also be the case that the cross-firm productivity and cost spillovers that led firms to agglomerate have also become less important with expansions in infrastructure. For certain skill intensive industries, however, Rosenthal and Strange (2003) and Arzaghi and Henderson (2008) provide evidence that agglomeration spillovers remain strong, or are strengthening, and are much stronger over very small distances between firms. Face-to-face interactions are becoming an increasingly important part of worker productivity (Baum-Snow and Pavan, 2012). Because downtown office configurations and density make interpersonal interactions relatively inexpensive, the composition of central-city employment has shifted from being concentrated predominately in blue-collar jobs to white-collar jobs. Many large city downtown areas have experienced office construction booms, drawing high-income office workers to live nearby. In the future, growing industries, which require skilled workers, will only promote denser urban development.

To this point, I have discussed density mostly in the United States context. But each of the ideas developed in the previous discussion also holds for most other countries the world. Developing countries, in particular, have a few additional relevant forces that will also promote denser living. Rapid urbanization has been occurring in many developing countries. While a detailed discussion of reasons for such urban-rural migration is well beyond the scope of this article, they include capital deepening in agriculture, improved urban infrastructure, and globalization's promotion of demand expansions for urban productive activities. In addition, population growth

rates in many developing countries continue to be very high. With more than 50 percent of the population in many developing countries now living in urban areas, some of this new population has to be accommodated higher off the ground and in more cramped conditions.

This article lays out the myriad reasons for which urban population densities are expected to grow during the coming 40 years. Although such density growth brings challenges, it also brings opportunities. Cities and dense economic activity are engines of innovation and growth and typically generate lower environmental costs than low-density living. We should be hopeful about the bright prospects that denser living brings, although simultaneously be aware of the burdens density growth can impose.

Acknowledgments

Author

Nathaniel Baum-Snow is an Associate Professor of Economics and Urban Studies at Brown University.

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