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# Will 'Urbanization Of The Suburbs' Affect Vehicle Ownership?

by Hart Schwartz | February 20, 2018

There are strong inverse correlations [between population density and vehicle ownership](#): The higher the density, the lower the level of vehicle ownership. High-density cities tend to experience much lower rates of household vehicle ownership than low-density suburbs, and rural areas, with the lowest densities of all, show the highest rates of household vehicle ownership.

This article will look at “urbanization of the suburbs,” a trend first described in an Atlantic Monthly [article](#) in 1986 by Christopher Leinberger and Charles Lockwood, and how it may affect vehicle ownership. It appears that the single-use, mass-housing-tract suburbs of the 1950s and 1960s have matured into blended configurations with many of the traditional features of cities—such as a walkable center or a cluster of offices, retail outlets, and commercial buildings—yet within a driving-friendly suburban setting. Commentators have tried to describe these new hybrid patterns of suburban land use, coining names such as “polycentric metropolis,” Edge City (Joel Garreau) or edgeless city (Robert Lang).

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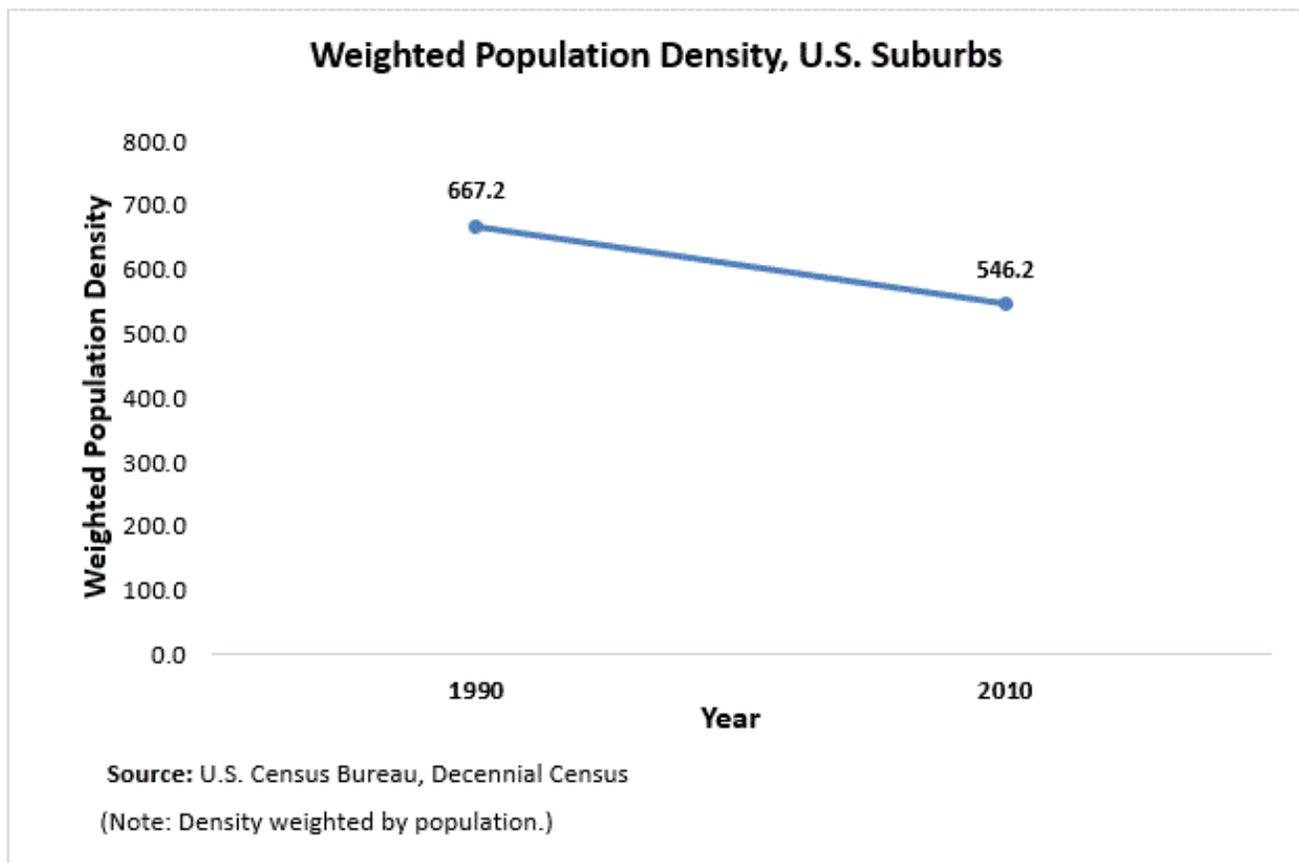
Suburbs have become the largest “container” of population in the United States, with 158 million residents as of 2010. Understanding the much-commentated “urbanization of the suburbs” may thus provide insight into future vehicle ownership levels and in turn fuel demand. At the margin, would

changes in suburban design induce households to reduce vehicle ownership? This question can be evaluated by looking at the statistical trend for suburban population

density and then proceeding to geography concepts to give a sense of where things currently stand and what may occur in future.

### Inconsistent data: If suburbs are urbanizing, why is population density decreasing?

Surprisingly, statistics show that suburban population density has decreased, not increased. If "urbanization" were occurring in the suburbs, one would expect to see increasing population density, and this is not the case. The following chart shows the decrease in suburban population density from 1990 to 2010, according to data from the U.S. Decennial Census.



What factors account for the inconsistency between population density statistics and widespread commentary by geographers? What in fact has happened in American suburbs? How can geography and statistics be reconciled?

### Development scenarios: Compact, sprawled, or blended?

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More broadly, this discrepancy highlights a key underlying question: Will American metropolitan areas, where 86 percent of the U.S. population lives, become more sprawling, or more compact? Or both at the same time? At least three different scenarios seem plausible:

- Compact, walkable, mixed-use (increasing density)
- More sprawl (decreasing density)
- Combination of compactness and sprawl (blended density)

Option number three, of hybrid, blended density, seems to already have come into existence. Dense poles of activity in suburbs, often known as Edge Cities, do exist. But these clusters co-exist with extended “blobs” of low-density (strip malls, low-slung warehouses, office parks) known as “edgeless cities.” The overarching truth is that both edge and edgeless cities are grafted onto a pre-existing, underlying foundation of sprawled transportation infrastructure. To describe the entire construct, geographers have taken to holistically describing the modern metropolitan area as the “polycentric metropolis,” with the heart of the old central city constituting the “primary downtown” and new poles of activity (i.e. Edge Cities) scattered throughout the suburbs serving as “secondary downtowns.”

This extended hybridization of land uses explains the discrepancy between geographic concept of “urbanization of the suburbs” and the official statistical picture of decreasing population density in suburban regions. In 1992, Washington Post journalist Joel Garreau published the book *Edge City: Life on the New Frontier*. He defined the concept of the “Edge City,” using it to describe the clusters of retail and office space that rapidly appeared in U.S. metro suburbs between 1970 and 1990. The defining features of the Edge City are shown in the following table.

## The Defining Elements of "Edge City"

Edge City Element	Definition / Description
Office Space	>=5 million square feet
Retail Space	>=600,000 square feet
Work center, not residential suburb	<b>Population increases at 9 am on weekdays</b>
Single-end destination for mixed-use	Jobs, shopping, entertainment
Not urban 30 years ago	Used to be residential or rural in character

**Source:** Joel Garreau, *Edge City: Life on the New Frontier*

Crucially, the daytime population of the Edge City disperses at night. The vast majority of both workers and shoppers get into their cars and drive home on lengthy Interstate-based journeys to other places, and thus Census population statistics omit the daytime clusters of activity. Therefore, edge cities can exist even if statistics do not show them. One only needs to drive the outlying areas of numerous U.S. metropolitan areas to verify the existence of Edge Cities; Garreau identified several hundred Edge City developments that specifically meet his definitions shown in the above table. Typically, these Edge Cities occur at the intersection either of two Interstates, or of an Interstate and state highway. A few high-profile examples would be Buckhead in Atlanta, Tyson's Corner near Washington DC, or Galleria in Houston.

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Edge Cities do not tell the whole story, however. Anyone who drives the metro suburbs will notice that large expanses of lower-density developments surround the denser clusters of Edge Cities. Known as "edgeless cities," these low-density developments fill large, extended spaces of metropolitan

suburbs and were first systematically defined by geographer Robert Lang, in his 2003 book *Edgeless Cities: Exploring the Elusive Metropolis*. As Lang observed, edgeless cities tend to include strip malls, office parks, low-rise warehouses, and factories. They seem

not to have any clear beginning or end, but rather are “painted” on the landscape in “blobs.” They have no discernible edge, hence the name edgeless. Whereas Edge Cities tend to locate at highway intersections, edgeless cities tend to sprawl in the space between highways or in corridors alongside the highways. A well-known example would be the semi-industrial areas of New Jersey, outside of Manhattan, but edgeless cities can be found in nearly every American metropolitan area.

The edgeless and edge city concepts complement one another. Throughout the metropolitan suburbs, edgeless cities “fill in the blanks” in the expansive spaces surrounding the Edge City clusters. The edge/edgeless combination serves as an excellent metaphor of the hybridized, blended land-use pattern that characterizes the metropolitan areas in which 86 percent of Americans now live.

### What's next?

So what does the future hold for metropolitan areas? High or low density, or blended? And how will future land use affect vehicle ownership? If the past flows forward and the future holds “more of the same,” then a hybridized blend of compactness and sprawl throughout America’s metropolitan areas seems the most likely outcome, especially given the relative permanence of infrastructure once built. Many urban planners, governments, and even businesses have begun to actively pursue mixed-use, compact, walkable developments in suburban areas, but as Edge Cities have shown, placement of walkable districts that people need to drive long distances to access may do little to reduce fuel consumption or vehicle ownership.

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Nevertheless, change may be on the horizon. There are urban design movements that provide fresh solutions for addressing sprawl, such as New Urbanism and Transit-Oriented Development, both of which could make cutting fuel consumption a stronger possibility in suburban areas. They will be explored in future articles.

Overall, awareness of today’s hybrid metropolitan geography, as expressed in the language of the polycentric metropolis, Edge City, and edgeless cities, will help readers to understand the context in which these compact development movements must

operate, and the extent to which vehicle ownership and fuel consumption patterns might become affected.