The Central Business District (CBD) in America has been historically shaped by transportation trends, policies and technologies. Its place in the overall economic and social structure of the American metropolis continues to be shaped by transportation. This project is an attempt to identify the transportation trends that have been most influential in the development of the CBD in America and to forecast future development in the CBD for the year 2050. In this project, I seek to answer a central question: will the CBD in 2050 continue to be the true “central business district,” that is, will older downtown sections of cities in 2050 be mere relics of their former glory as centers of employment, commerce and culture, or continue to be the Nation’s center of economic and cultural growth and change? An answer to this complex question will rest upon an analysis of how transportation has shaped the role of the CBD over time and how it may shape it in the future.

At the outset it is important to define the term “CBD” as opposed to the more common term “downtown.” I am of the persuasion that the terms “downtown” and “CBD” be used interchangeably, for a downtown that is not a traditional center for employment, business and wealth creation is not a true “downtown” at all. Employment centers represent the very “essence of urbanism,” as one of the key reasons for the city’s existence, especially in the American context, is trade and the creation of wealth. It is for this reason that the future of the American traditional downtown is important, as the status of the downtown as a commercial and cultural hub is one of the very bases for our very notion of what is “urban.” Thus, should the downtown evolve into a mere novelty or relic, this would represent a significant shift in how Americans live, work, get around, and even think about their everyday geography.

This paper will first examine the role that transportation decisions, trends and technologies have played in the formation of the Downtown and its role in the overall metropolitan area. The development of the Downtown will be traced from its beginnings in the pre-automobile era, to its current place in the freeway era. The future of the Downtown will then be forecasted.

The Role of Transportation

Throughout history, transportation technologies, and the policies that encourage or discourage their use, have shaped urban form. The current American downtown is the product of nearly two centuries of different transportation technologies, trends, and policies.

---

To explain the relationship of transportation and urban form, Muller (1995) outlined urban development in the United States in four eras: 1. walking and horse-car era, 2. streetcar era, 3. recreational automobile era, and 4. freeway era. These four "eras" are useful for examining the effect of transportation technologies and policies on the form and geography of the city in its entirety. But unlike the city itself, the CBD is a product of technological change that allowed humans to travel en masse using means other than water-bourn modes or their own feet. That is, the CBD arose as the “walking city” transformed into a “mass transit” city. Thus, I will examine the role of transportation in shaping the CBD within the framework of two eras. One reflects the role of mass transit in shaping the downtown as we know it today, and is appropriately entitled the “mass transit downtown.” The other reflects the technology that most drastically altered the metropolis, the CBD’s place in the metropolis, and the form of the CBD itself: the automobile.

**The Mass Transit Downtown**

Mass transit, first in the form of horse-drawn streetcars, and later in the form of rail streetcar systems, expanded the boundaries of the “walking city.” With the industrial revolution came massive expansion in urban population and city size. Mass transit allowed the physical expansion of the city in a way never before possible. Middle class families relocated to new neighborhoods at the urban fringe in “streetcar suburbs.” While there remained masses of poor clustered near the city center and near industrial employment nodes, the middle classes relied on mass transit lines to reside in relatively cleaner fringe neighborhoods and remain employed in the city. As the basis of commerce and wealth generation in the city remained in the older “walking” core of the city, transit lines served the central core, like “spokes radiating from a wheel hub.” Employers and entrepreneurs, in order to serve the population of the whole city and tap into a city-wide employment base, found it advantageous to locate “downtown,” a word that first entered the American lexicon in 1955. pg. 32

---

Muller, Peter. "Transportation and Urban Form." The Geography of Urban Transportation, Hanson, Susan ed. New York, Guilford, 1995. pg. 32
the mid- to late nineteenth century to describe the city center of employment, retail and commerce. Figure 1 represents the early
downtown, in which employment clustered toward the center, while dense residential development occurred along transit lines.

The Mass Transit city was a densely populated place. This density was a product of transportation technologies available to urban
dwellers at the time. “There were only two technologies available for getting to work: walking directly to the job site, or walking to the
nearest station to hop some sort of railroad – a streetcar or a subway – and then walking to the job site.” (Garreau 1991) Not only did
this encourage density in residential neighborhoods, to reduce the distance that needed to be traveled on foot, but also in
downtowns. As cities grew bigger in population, businesses in the downtown, especially specialized services such as banks and
insurance companies, needed to expand, but could not give up their location in the city center, as such a move would make them
less accessible to many of their transit-dependant customers. Businesses interested in expansion, therefore, had only one way to go:
up. After pushing the limits of building technology, three major breakthroughs – Bessmer steel, the elevator, and higher municipal
water pressure, allowed buildings to be constructed at ever greater heights. The downtown of popular imagination, of soaring
skyscrapers and concrete canyons, was born.

During the first decades of the 20th Century, when the United States emerged as an economic and technological world leader, the
American downtown reached its zenith as the undisputed center of commerce. During this period several downtowns in major cities,
especially New York City’s Manhattan and Chicago’s Loop became truly global centers of commerce. In most cities the vast majority
of office space and business activity took place downtown. Retailers, seeking a citywide customer base, located in the walkable
downtown core. Density, and the huge amounts of foot traffic that came with it, made many downtowns centers of culture. For most
Americans in the early 20th Century, Downtown was not only the place they worked, but the place they shopped and entertained
themselves.

The American Downtown developed as the Nation’s center of commerce and culture because it offered businesses and
entrepreneurs, during the mass transit era, a distinct competitive advantage over other locations. As in all eras, land that has access
to transportation will be more attractive to developers and businesses than land that does not have access. When American cities
functioned on mass transit, Downtown was the part of the American metropolis that virtually monopolized access. Fixed rail routes in
virtually every American city converged upon Downtown. Moreover, Downtown offered businesses opportunities for personalized
face to face contacts with suppliers and customers, an absolute necessity in a time before advanced modern communications.
The automobile has been vilified by many scholars, observers and urbanists as the “destroyer of the city.” Others view the advent of the widely available automobile and the changes it brought to the American cityscape as a natural progression in which American ideals of open space, personal freedom and anti-city sentiment were manifested in new urban forms facilitated by a technology that Americans eagerly accepted. Whether due to natural progression, poor planning, or even conspiracy on the part of automobile manufacturers and the highway lobbies, the automobile has altered the 19th century urban form of transit and walking dependence to a new form that is starkly different in appearance and function. The Downtown’s role in this new metropolis is markedly different than its role at the beginning of the last century. In only two metropolitan areas, Chicago and New York City, downtown commands a majority of office space – not coincidentally, these regions are home to the Nation’s densest and second-densest downtown cores, and the two great American “transit” downtowns: Midtown Manhattan and The Loop, respectively. In most American cities, especially in the most rapidly growing cities of the “sun belt,” the South and West Coast, the traditional Downtown takes a back seat in amount of office space and employment power, to what journalist Joel Garreau has dubbed “edge cities,” and to the less cohesive and identifiable “edgeless cities.” Figure 4 shows the total square footage in selected metropolitan regions and breakdown by CBD and non-CBD.

4 Muller, pg. 37
The new metropolitan form casts doubt as to whether the term “Central Business District” is even applicable in most American metro areas. Figure 2 represents the current urban form, with freeways replacing transit lines as the main transportation forces in an urban region. The automobile clearly has had significant, and perhaps irreversible, effects upon land use in the urban area. The automobile has made density no longer the necessity that it once was under a transit dominated system, and has erased many of the competitive advantages that the Downtown once offered employers and entrepreneurs in the pre-automobile era.

As noted earlier, the Downtown’s key advantage over other locations in the mass transit era was that it offered far greater access to more points in the metropolis than any other site. This was a function of transit systems in most cities designed like wheel spokes emanating from a central hub. The automobile changed this scenario forever, because with automobiles owned and used by virtually every American, virtually every point within the metropolis had access to any other point. In the earliest years of automobile use, however, Downtown still maintained its access advantage, as dense transit-induced residential patterns lingered, giving Downtowns better access to middle-class workers than competing sites at the urban fringe. It was a new trend, beyond the widespread adoption of the automobile, which signaled the beginning of the end of Downtown’s commercial hegemony: the freeway.

As soon as automobiles became widely used by the masses, efforts began to improve roadways to accommodate them and their speed of travel. It wasn’t until after World War II, however, that the full scale construction of the freeway system began, with the passage of the Interstate Highway Act of 1956. Unlike many of its European peer countries, the United States pursued a policy in which limited access high speed roadways would be placed running through city centers. Mayors and other civic leaders eagerly embraced freeways running through the hearts of their cities, and some, especially Robert Moses of New York City, became notorious “freeway builders.” As freeways were financed with 90% federal funds, urban leaders wanted to gain as much from federal subsidies as their suburban and rural counterparts. Moreover, as the largest public works project in world history, the construction of freeways created jobs during the

<table>
<thead>
<tr>
<th>Metro Area</th>
<th>% of Office Space in CBD</th>
</tr>
</thead>
<tbody>
<tr>
<td>New York</td>
<td>56.7</td>
</tr>
<tr>
<td>Chicago</td>
<td>53.9</td>
</tr>
<tr>
<td>Boston</td>
<td>37.4</td>
</tr>
<tr>
<td>Philadelphia</td>
<td>34.2</td>
</tr>
<tr>
<td>San Francisco</td>
<td>33.9</td>
</tr>
<tr>
<td>Denver</td>
<td>30.4</td>
</tr>
<tr>
<td>Los Angeles</td>
<td>29.8</td>
</tr>
<tr>
<td>Washington,DC</td>
<td>28.6</td>
</tr>
<tr>
<td>Atlanta</td>
<td>23.6</td>
</tr>
<tr>
<td>Houston</td>
<td>23.0</td>
</tr>
<tr>
<td>Detroit</td>
<td>21.3</td>
</tr>
<tr>
<td>Dallas</td>
<td>20.5</td>
</tr>
<tr>
<td>Miami</td>
<td>13.1</td>
</tr>
</tbody>
</table>

Source: Lang, Edgeless Cities.

---

Transportation and Future of Downtown – Dave Steele

critical post war era. They were also widely believed to be useful for evacuation of cities during nuclear attack, and were believed necessary to ensure that Downtown would retain access to suburban workers. Some cities with severe congestion problems by the late 1940s began freeway systems even before the interstate highway act created a federal funding mechanism.\(^7\)

Freeways enabled middle class families to build new homes on the urban fringe while maintaining employment in the Downtown. Millions of families moved to the suburban fringe during the post-war years, encouraged not only by new freeways but federal housing policies that encouraged new suburban residential construction over new construction or rehabilitation in established urban neighborhoods. Employment centers for the most part remained Downtown, although a few employers, most notably AT&T, moved their base of operations out of the CBD and into a new, automobile friendly campuses as early as the 1930s.\(^8\)

For the most part, retail remained Downtown until the late 1960s, when the “malling of America” pushed most retailing to the suburban fringe, closer, and more accessible to middle class families. Gradually, as automobile dependence gave employers the incentive to seek more spacious surroundings with ample parking, as the Nation moved to an information-based economy in modern telecommunications made the face to face transfer of products less important than in the past, and as women began to appear in the work force in greater numbers than ever before, literally doubling the demand for employment to be located nearer the suburban home, office employment seeped out of the CBD and into edge cities and edgeless cities.

It was during the initial decades of freeway construction, and suburbanization of metropolitan areas, that transportation planners and engineers, began a process of vehicular accommodation in dense urban neighborhoods and Downtowns.\(^9\) This accommodation was done piecemeal, with minor changes that added up to what Jane Jacobs called a long-term “erosion” of the city to allow room for traffic congestion and automobile storage. Thus, the physical character of many central cities and Downtowns changed. Surface parking lots and parking garages ate up valuable Downtown land, reducing density, one of the Downtown’s principal assets. By the 1970s, many American CBDs had become hollowed out, with buildings punctuated by acres of surface parking. Street widening and other traffic accommodation measures, such as the conversion of urban boulevards to one way streets, lowered the pedestrian friendliness of downtowns, discouraged transit use and walking, and made Downtown retailers less viable.\(^10\)

In the freeway era, the CBD no longer has a virtual monopoly on access. With freeways, virtually any point in the metropolitan area has access to virtually every other point. This lessens the competitive advantage that Downtowns enjoyed during the mass-transit era. In the popular imagination, the “Ozzie and Harriet”-style commute in which the bulk of suburbanites commute daily to their office

---

\(^7\) Grava, pg. 153
\(^8\) Garreau, pg. 26
Transportation and Future of Downtown – Dave Steele

jobs Downtown is still the norm in America. The reality, however, is much different. With the exception of New York City and Chicago, the majority of office space in American metro areas is not Downtown. One third of all metropolitan work trips are into the central city. Most metropolitan employment occurs in “edge cites,” a kind of suburban “downtown,” and “edgeless cities,” commercial development with no clear center or boundaries.

Edge Cities vs. Edgeless Cities

At the intersections of major freeways in affluent suburban areas, superior access to middle class workers and customers has given rise in the past two decades to a new type of suburban agglomeration of employment and retail. These centers have been termed “concentrated decentralization,” “suburban downtowns,” “mini-downtowns” and “edge cities.” In his influential 1991 book Edge City, Joel Garreau heralded the edge city as a sign that density, and the cultural advantages that come with it, had made a return in a new, automobile-friendly form. Garreau identified the advent of edge cities as a market response to middle class, automobile-dependent American moving to the suburbs.; to Garreau they are market-driven models of metropolitan efficiency, as edge cities move employment closer to suburban workers, thus reducing travel times. Garreau defined Edge Cities as marked by:

- Five million square feet of leasable office space or more.
- Six hundred thousand square feet of retail space or more.
- A population that increases at 9AM on workdays – marking the location as the primary work center, not a residential suburb.
- A local perception as a single end destination for mixed use – jobs, shopping and entertainment.
- A history in which, thirty years ago, the site was by no means urban; it was overwhelmingly residential or rural in character.

---

12 Lang, pg. 82
13 Garreau, pg. 425
Transportation and Future of Downtown – Dave Steele

The first four components of the above description of an Edge City could easily be used to describe the traditional Downtown. But what sets apart the Edge City from Downtown is not simply its newness. Rather, the Edge City, unlike the traditional Downtown, is an automobile-dominated world. The physical layout of the Edge City is spread out; tall buildings are separated by greater distances than in a traditional Downtown. Vast open spaces of parking lots coexist with office and retail buildings.

Edge cities, as defined by Garreau, now make up a significant percentage of office space, employment and retail in the United States. Just how much space they comprise is unclear, as there is difficulty in defining exactly what is and is not an Edge City. Several of Garreau’s criteria for defining an Edge City are subjective in nature, but several identifiable places in the United States are clearly great suburban centers of employment and retail activity, and are indisputably Edge Cities. Lang identified the top ten Edge Cities (Figure 5); clearly, several Edge Cities qualify as agglomerations of office space great enough to warrant the title “suburban downtown,” and nearly all of the largest Edge Cities are in the automobile-dominated South and West.

The top ten Edge Cities comprise a total of 169 million square feet of office space, which is far below the total office space in Midtown Manhattan and slightly more office space than in Chicago’s downtown. Indeed, no single Edge City on the top ten list has more office space than its metro area’s CBD, although Costa Mesa, in metropolitan Los Angeles, has slightly less office space than the Los Angeles CBD. In the largest metro areas, especially those with the densest CBDs, edge cities come nowhere near the traditional Downtown in terms of office space and influence. Midtown Manhattan, for instance, contains nine times the total office space of all nine edge cities in the New York metropolitan area combined.14

Will edge cities arise as the next “downtown”? Garreau views edge cities as the future of urban America, a natural product of the desire for dense, culturally vibrant urban centers and automobile dependency. But Garreau’s book was written at a time, the early 1990s, immediately following the great boom of edge cities in the 1980s. Since his writing, no new edge cities have been created, and existing edge cities have remained stagnant in growth and

<table>
<thead>
<tr>
<th>Edge City</th>
<th>Metro Area</th>
<th>Sq. Ft. Millions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Costa Mesa</td>
<td>Los Angeles</td>
<td>28.5</td>
</tr>
<tr>
<td>Post Oak</td>
<td>Houston</td>
<td>21.1</td>
</tr>
<tr>
<td>Tysons Corner</td>
<td>Washington</td>
<td>17.9</td>
</tr>
<tr>
<td>Cumberland Galleria</td>
<td>Atlanta</td>
<td>17.6</td>
</tr>
<tr>
<td>Southfield</td>
<td>Detroit</td>
<td>17.5</td>
</tr>
<tr>
<td>Perimeter Center</td>
<td>Atlanta</td>
<td>15.9</td>
</tr>
<tr>
<td>Troy</td>
<td>Detroit</td>
<td>13.6</td>
</tr>
<tr>
<td>LBJ Freeway</td>
<td>Dallas</td>
<td>13.2</td>
</tr>
<tr>
<td>Far North Dallas</td>
<td>Dallas</td>
<td>12.3</td>
</tr>
<tr>
<td>South Bay/LAX</td>
<td>Los Angeles</td>
<td>11.6</td>
</tr>
</tbody>
</table>

14 Lang, pg. 53
have even declined. \hspace{1em}^{15} Efforts to turn edge cities into denser, more “urban” employment and retail centers have been met with limited success. Tyson’s Corner, Virginia, outside of Washington, DC is one of the most well-known edge cities, and features prominently in Garreau’s book. Tyson’s Corner by the mid 1990s had grown to be reviled by its residential neighbors and its own employees as a lifeless, soulless collection of office buildings and parking lots, which offered nothing of the congestion-free, bucolic promise of suburban life. Efforts were undertaken in the mid-1990s to turn Tyson’s Corner into a more urban-style “downtown” center, with taller buildings and greater densities. The results were less than encouraging. One reporter commented that the “new” Tyson’s Corner was a “taller version of what was there before: the buildings are still set apart from one another, remote islands in a sea of driveways, plazas, berms and parking garages -- a place, in other words, better suited to automobiles than to pedestrians.” \hspace{1em}^{16}

Efforts to turn edge cities into denser, more “urban” employment and retail centers have been met with limited success. Tyson’s Corner, Virginia, outside of Washington, DC is one of the most well-known edge cities, and features prominently in Garreau’s book. Tyson’s Corner by the mid 1990s had grown to be reviled by its residential neighbors and its own employees as a lifeless, soulless collection of office buildings and parking lots, which offered nothing of the congestion-free, bucolic promise of suburban life. Efforts were undertaken in the mid-1990s to turn Tyson’s Corner into a more urban-style “downtown” center, with taller buildings and greater densities. The results were less than encouraging. One reporter commented that the “new” Tyson’s Corner was a “taller version of what was there before: the buildings are still set apart from one another, remote islands in a sea of driveways, plazas, berms and parking garages -- a place, in other words, better suited to automobiles than to pedestrians.” \hspace{1em}^{16}

Edge cities will never become truly “urban” downtowns because they exist in a suburban world. \hspace{1em}^{17} Sited along wide, winding boulevards and collector roads, edge cities do not have the traffic infrastructure to handle urban densities effectively, that is, they do not feature the traditional street grid that is characteristic of old downtowns. This suburban transportation infrastructure does not lend itself to the efficient use of mass transportation, which would alleviate the congestion that comes with greater density. Edge cities cannot support the densities required for agglomerations of business, which, as we shall examine later, is one of the key reasons that the traditional Downtown is still relevant.

If edge cities are not the commercial force that were once thought to be, then where does most office space lie in the metropolitan area? Most office space is spread out in what Robert Lang called “edgeless cities,” a term that is an obvious response to Garreau’s “edge cities.” Edgeless cities are low density, separated office development that has no clear center and no clear boundaries. Edgeless cities are the ubiquitous office parks, professional buildings and strip service centers that dot the metropolitan landscape. They are so widespread and ordinary that they go mostly unnoticed by residents and scholars alike. Most white collar workers in the United States today work in these anonymous places – their commonness has even become part of the lexicon. The term “office park dad” is used by political strategists to describe the suburban, white-collar husbands of the well-known “soccer moms.” \hspace{1em}^{18}

Thus, the greatest threat to the continued relevance of Downtown comes not from the “new downtowns” in the suburbs but the sprawled commercial and office development that is familiar to every American. These edgeless cities are very low-density, and as such do not suffer from the traffic congestion that has plagued edge cities. Moreover, the office buildings and professional buildings that make up edgeless cities need not be located near shopping and entertainment; while they are separated from other uses, and

\hspace{1em}^{15} \text{Lang, pgs. 86-100}
\hspace{1em}^{16} \text{Lang, pg. 95}
\hspace{1em}^{17} \text{Lang, pg. 94-95}
\hspace{1em}^{18} \text{Lang, pg. 7}
each other, by great distances, the suburban dwellers’ seeming acceptance of lengthy drives for all necessities make these locations no less attractive than edge cities.

The Relevance of Downtown

Many observers point to the shift in office space from Downtown to the fringes of the metropolitan area as a sign that Downtown has entered a period of decline which lead to its eventual irrelevance. The rapid growth of suburban office markets is cited as evidence that as urban areas become ever more decentralized, the Downtown fades away as a the commercial and cultural center of the region. One question that I posed at the outset of this chapter, “will the Downtown be merely a relic of its former self?” seems to have been answered by many observers, at least those ten to fifteen years ago, as a resounding “yes.” Indeed to many at the time, Downtown was already a relic. The economist Edwin Mills wrote in 1988 that “there appears to be no powerful factor that holds manufacturing, construction, FIRE (Finance, Insurance, and Real Estate) and business and professional services in the central cities.”  

To Mills this decentralization is not surprising, as cities have been decentralizing since the 19th Century. Joel Garreau characterized dense central cities as historical anomalies, “relics of at time past.” The densely populated, transit oriented hive of activity that typifies Chicago’s Loop or Manhattan are “only one way to a look a city....the nineteenth century version.”

While in most metropolitan areas the CBD does not make up even a bare majority of office space in the region, focusing on sheer amount of square footage of office space ignores what kinds of activities take place in CBD versus non-CBD locations. The Downtown is still the Nation’s center for executive decision making and innovation. Downtowns are still relevant because their density gives them a distinct advantage over their competition within the realms of high finance, innovation and entrepreneurship. The metropolitan area is an a constant state of dynamic equilibrium in which efficiencies and diseconomies of scale balance each other. In some industries the efficiencies of locating in a dense urban core outweigh the diseconomies. That is, firms will pay the higher rents for space in a CBD for the efficiencies that come with density.

While the automobile has changed the face the metropolis, spawning vast, low density development, Downtown remains dense. Recent Downtown revitalization efforts across the county within the past few decades have sought to embrace the density of Downtown by increasing pedestrian friendliness and reversing the effects of accommodation to the automobile that was common in

---

19 Lang, pg. 22
20 Garreau, pg .25
21 Lang, pg 25
the 1950s and 1960s. Rather than being viewed as a burden, density is now being embraced by planners, architects, engineers, and businesses. Density creates an ideal environment for entrepreneurship, innovation and creativity, which are more important for a business’ success today more than ever before.

Economists have long recognized the role the agglomerations of industries play in creating efficiencies within and among business sectors. Downtowns, as dense business environments, allow agglomerations to flourish, unlike suburban locations, which are limited in their ability to grow denser. In agglomerations, producers can benefit from being close to suppliers, and vice versa. Professional services in agglomeration economies can benefit from geographical proximity to a large pool of potential clients. These mutually-beneficial spatial arrangements not only expand client and customer pools for services, but allow corporations access to competitive services to perform functions that they cannot perform internally, and lower the costs of supplies and the distribution of products. It is worth noting that even in Los Angeles, long known as the birthplace of sprawl, business clusters have arisen among the region’s many edge cities. Individual industries have come to dominate particular edge cities throughout the Los Angeles metro area; these industries feed off of each others’ locations. This phenomenon can be seen in the clustering of talent agencies and major studios in Burbank.

Clustering also allows firms to quickly tap into a large pool of talent, which can be vital for a firm to maintain a competitive edge, especially in today’s fast paced economy. This “human capital” is enhanced by density, and cities create the ideal environment for the creation of pools of human capital. Jane Jacobs first identified the city’s propensity for building human capital, and how this spurs economic growth not only for the city itself but the Nation as a whole. Many recent economists and urbanists have embraced this view of cities as economic engines.

Richard Florida, in his influential 2001 book *The Rise of the Creative Class*, offers some insight into the relevance of Downtowns in the 21st Century. Florida’s central thesis revolves around the notion that in the modern economy, knowledge and creativity are the most important resource in business, and that places with large concentrations of knowledge and creativity are at the leading edge of economic growth in this century. Creativity and knowledge are found in creative and talented people, so companies will locate to


\[24\] Florida, pg. 221

\[25\] Lang pg.16

\[26\] Florida, pg. 221

\[27\] Florida, pg. 221

\[28\] Norquist
Transportation and Future of Downtown – Dave Steele

places where creative people cluster, and places which will appeal to creative people, in order to remain competitive. Florida, through hundreds of interviews and focus groups with members of this “creative class,” found that the creative people who drive the New Economy are attracted to places with a high level of “experience,” places with an eclectic music scene, and places with diverse and varied neighborhoods with active street life. The ideal places for the “creative class” that Florida describes in his book are classic street scenes in dense central city neighborhoods and traditional downtowns:

The culture is “street-level” because it tends to cluster along certain streets with a multitude of small venues. These may include coffee shops, restaurants and bars,...art galleries; bookstores and other stores; small to mid-size theaters for film or live performance or both; or various hybrid spaces – like bookstore/tearoom/little theater or gallery/studio/live music space – often in storefronts or old buildings converted from other purposes.  

Density helps create diversity of uses, entertainment and retail in an area, as specialized shops and services have a wider customer base in dense areas. This gives these specialized niche businesses a greater chance of tapping into a customer base.

The active street culture and cultural amenities that comes with density act as draws for creative people, which in turn draw economic activity, especially in the form of New Economy high-tech firms.

Silicon Valley, one of the most well-known edge cities and a center for technological innovation in the 1990s, owes much of its existence to its proximity to the cultural and commercial center of San Francisco’s financial district. The group of venture capitalists who would eventually fuel Silicon Valley’s rise to prominence began their careers in finance in downtown San Francisco, and much of Silicon Valley’s attractiveness to national and international talent was its proximity to the urban amenities of San Francisco. Moreover, as the software and technologies that were developed in Silicon Valley matured and their continued development became more content driven, software development moved to dense Downtowns filled with human capital and business agglomerations, such as Manhattan and Downtown Boston.

Even Silicon Valley, arguably the most successful edge city of the 1990s, shows its limitations in the face of denser downtown cores across the country.

Despite technological advances in communications, location is still an important factor in the information age. Among the most important factors affecting business location decisions, cost is paramount. The cheaper costs of land and parking in suburban areas have given rise to the edgeless cities and edge cities discussed earlier. If an office location can be moved to the suburbs, then it most likely will. While this statement may alarm those who fear for the future of Downtown, the fact remains that many business operations must be performed Downtown, and that Downtown creates an environment that is vital to recruiting top creative talent.

---

29 Florida, pg. 183
31 Lang, pg. 23
32 Lang, pg. 23
Transportation and Future of Downtown – Dave Steele

The operations that have moved to suburban areas are mostly “back office” operations, in which the “brains” of the company remain Downtown. For instance, since it costs a company more to employ a person Downtown than in the suburbs, functions that can be performed anywhere, such as billing, telephone customer service and other administrative tasks, will be moved to suburban locations. Functions that benefit from a Downtown location, such as executive decision-making and creative functions like marketing, remain Downtown.

Edge cities and edgeless cities perform essential functions in metropolitan areas. Access to suburban middle class populations and shopping centers make edgeless cities an ideal, low-cost location for services such as dentist offices and attorneys. The physical separation of uses in suburban areas makes them well suited for companies seeking a “campus” environment; some industries, such as pharmaceuticals and scientific research, require the isolation of the suburbs for security reasons. The realities of the modern economy, however, mean that Downtown is as essential as ever before.

Transportation and Today’s Downtown

Several Downtowns in the United States never lost their density or transit-orientation in a significant way; chief among these great subway Downtowns is New York City’s lower and Midtown Manhattan. Most Downtown’s however, were modified throughout the second half of the 20th Century to accommodate the automobile, and lost density and pedestrian attractiveness as a result. The streetcar era in the United States ended around the 1920s and 1930s, and with the demise of the great streetcar companies times began to change for the

<table>
<thead>
<tr>
<th>Metro Area</th>
<th>Creativity Index Rank</th>
<th>Rail Transit</th>
</tr>
</thead>
<tbody>
<tr>
<td>San Francisco</td>
<td>1</td>
<td>36 miles of streetcar, 96 mile BART system, studies for new LRT system</td>
</tr>
<tr>
<td>Austin, TX</td>
<td>2</td>
<td>Proposed 14.1 mile LRT system</td>
</tr>
<tr>
<td>San Diego</td>
<td>3</td>
<td>26 miles of LRT, extension planned.</td>
</tr>
<tr>
<td>Boston</td>
<td>4</td>
<td>5 miles of streetcar, integrated with 77 mile subway system</td>
</tr>
<tr>
<td>Seattle</td>
<td>5</td>
<td>Proposed 26 mile LRT, 1.2 mile monorail</td>
</tr>
<tr>
<td>Raleigh-Durham</td>
<td>6</td>
<td>Proposed LRT</td>
</tr>
<tr>
<td>Houston</td>
<td>7</td>
<td>7.4 miles of LRT under construction</td>
</tr>
<tr>
<td>Washington – Baltimore</td>
<td>8</td>
<td>50 miles LRT and 14 miles of metro in Baltimore, 103 miles of metro in Washington, 4 miles LRT proposed</td>
</tr>
<tr>
<td>New York City</td>
<td>9</td>
<td>One of the most extensive subway systems in the world, 230 miles</td>
</tr>
<tr>
<td>Dallas</td>
<td>10</td>
<td>46.7 miles LRT, 23 mile extension under construction</td>
</tr>
</tbody>
</table>

34 Grava, pg.448
Transportation and Future of Downtown – Dave Steele

Downtown. As automobiles require more space for driving and storage than previous transportation modes, their ubiquitous use takes up much space. Parking structures and surface parking was built in Downtowns throughout the second half of the 20th Century, reducing density and making places farther apart from one another. While this made Downtown less of a walking environment, one way streets other street improvements made Downtown easier to travel in by car. Ironically, while civic leaders and planners may have believed that they were helping Downtown compete with suburban areas by accommodating the automobile, they were actually undermining its key asset: density.

Many of today’s planners, engineers, and civic leaders recognize that the density of Downtown is an asset that must be embraced and encouraged. In addition to fostering Downtown’s cultural and residential environment, planners seek to make Downtowns more pedestrian oriented, and encourage density through transportation improvements that reduce reliance on the automobile. Streetcar systems, which have been re-branded as “light rail transit,” 35 have made a return to American cities over the past three decades. Several cities, such as Denver and Portland, Oregon, have instituted pedestrian—oriented “transit malls” in their Downtowns. Downtowns, as the most densely populated part of most cities, and as the symbolic heart of the city, are particularly well suited for transit improvements, as denser areas can be better and more efficiently served by transit.

The automobile is still by far the dominant transportation mode in America today. But rail transit has been built in many cities in recent decades, and many more systems are currently in the planning stages. These rail transit systems are often the centerpiece of a Downtown revitalization plan. 36 Many American Downtowns have seen an upswing in interest and business activity through the efforts of many to embrace density, make Downtown a more attractive residential and shopping area, attract tourists, and boost cultural attractions. Transportation improvements are the connecting tissue that makes a revitalized Downtown work.

Improved mass transit options may also have an economic benefit in boosting a city’s image as progressive. This image may work toward attracting the creative capital so necessary for economic growth in the 21st Century economy. While Richard Florida did not specifically mention mass transit as a draw for creative people, most dense, culturally vibrant cities have some kind of transit system beyond bus service. As figure 5 shows, many of the cities that were ranked by Florida as being top in the “creativity index” have significant rail transit systems, and have systems or extensions under development. This is undoubtedly a result of the fact that Florida’s most “creative” cities are big cities, and most big cities have some kind of rail development. But it is worth noting that Austin and Raleigh-Durham, both relatively small cities on Florida’s list, are planning light rail transit systems. This would suggest that the “creative class” that Florida writes about value mass transit and the increased density that can result from it.

35 Grava, pg.438
36 Robertson
The Future of Downtown

It is impossible to predict with any degree of confidence what the American Downtown will physically look like in 2050. America’s Downtowns look remarkably similar today in comparison with how they looked in 1950s, before the wave of suburbanization threatened to make them irrelevant. Most people in Downtowns rely on cars, and the rest use some kind of transit, usually bus – this has little changed since 1950. But the role of the Downtown in the regional, and international economy has changed drastically since 1950. Today’s Downtowns are at the centers of vast metropolitan regions, polycentric agglomerations of commercial and business nodes. Several Downtowns stand at the commercial crossroads of the world, in which international companies vie for space in prime office buildings, and in which people from all over the globe come to trade and do business. Downtowns today are also residential environments, with enclaves of housing sprouting in places unimaginable in 1950: Battery Park City in Lower Manhattan occupying the site of former docks, for instance, or residential development immediately south of Chicago’s Loop occupying a former rail yard site. Where the Downtown will be in terms of residential development or global trade in 2050 is difficult to predict, as so much depends on factors such as demographics, world politics, and societal trends in housing styles and the like.

Analyzing past and current trends, however, may shed some light onto the role that the Downtown will play in the future economy, and how transportation will affect what future the Downtown will have. Downtown seemed to many to be fading away in the 1980s, as edge cities arose to challenge them as employment, and eventually cultural, centers. At that time one predicting the future of Downtown fifty years hence would have easily predicted their eventual irrelevance; they would have become relics, museum pieces of an earlier time, no longer vital to the Nation’s economy. The 1990s changed the view of cities, and this shift was due not only to the inadequacies of edge cities, but to an overall shift in the economy as a whole. Downtowns revitalized, and transportation was integral in this process. But the driving force behind this change was the utility of Downtown as a “face to face” meeting place in an age of great technological change and innovation.

The destruction of the World Trade Center on September 11, 2001 led many to once again predict the end of Downtowns. The attacks on the Twin Towers not only led to great loss of life and signaled a new, foreboding era in world affairs, but destroyed or severely damaged over thirty million square feet of office space. Several firms in Lower Manhattan lost the entirety of their physical infrastructure on that tragic day, and many others were forced to relocate their operations – many firms relocated to edge cities and other suburban locations in New Jersey and Connecticut. Many observers believed that the new age of terrorist threat on major cities would force many companies to relocate to seemingly safer suburban office parks and edge cities.

---

37 Muller pg. 48
Transportation and Future of Downtown – Dave Steele

While the events of September 11, 2001 have had a marked negative effect on vacancies in major landmark buildings, especially the Empire State Building and Chicago’s Sears Tower, Downtowns across the country have seen no major increase in office vacancies since the attacks. At the site of the World Trade Center complex itself, work is already underway on the construction of a new office building, and rebuilding plans for site of the Twin Towers themselves call for the restoration of most of the office space lost in the attacks. Construction of new office buildings continues in Downtowns all over the United States.

In 2050, of course, the terrorist attacks on the World Trade Center will be viewed as part of history. But the events of recent years have shown that Downtown office markets are remarkably strong, and that the glue that holds them together, their density, is as strong as ever. By the middle of the 21st Century, innovation and creativity will still be highly valued traits by employers, as they always have been. Advances in communications may allow some tasks that currently require face-to-face contact to be performed remotely, but for the large part much of business and deal-making will still occur in person. There will still be the need for Downtowns in 2050, but it is unclear whether they will be as dense and active as today.

It is likely that the dominant form of transportation in 2050 will be some form of the automobile, and thus metropolitan areas will continue to decentralize. Communications advances may also accelerate this trend. As metropolitan areas continue to expand in physical size, however, becoming regions characterized by urban “realms,” the Downtown may take on a more important role as the place where the region “comes together,” where all the disparate sections of metropolitan life converge.

To ensure the Downtown’s place in the metropolitan region as a “Central Business District” and a cultural hub, civic leaders, planners and engineers must take steps to ensure that the density of Downtown remains. Reduced reliance on the automobile within the Downtown itself is key to this. Attractive, usable transit options will go a long way toward luring Downtown visitors, residents and workers out of their cars, thus reducing congestion and the amount of land devoted to parking and traffic lanes. Density and automobiles can coexist, but density will not occur in places whose infrastructure demands full reliance on the automobile. Tomorrow’s civic decision-makers must remember this to ensure that Downtowns remain dense, and thus play their vital role in the world economy.
Bibliography


Transportation and Future of Downtown – Dave Steele


Robertson, Kent A. “Downtown Revitalization Strategies in the United States.” *Journal of the American Planning Association*,