



POLICY ANALYSIS

The Last Utopia: The 15-Minute City

By Alain Bertaud

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Urban Reform Institute
3900 Essex Lane, Suite 1200
Houston, Texas 77027

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"With my 15-minute neighborhood plan, every New Yorker will have access to a great education, rapid transportation, fresh food, parks and everything they need to live a high-quality life within 15 minutes of their front door! ...

Shaun Donovan, Mayoral Candidate for New York City, former United States Secretary of Housing and Urban Development, on Twitter (May 10, 2021)

Mayors and urban planners have crucial roles in the management of cities. They must help cities adapt rapidly when confronted with external shocks—the pandemic is only the latest one of these. To be a prudent and efficient janitor is the main task of mayors.

However, mayors and urban planners feel obliged to invent more glorious tasks to demonstrate their creativity during political campaigns. Mayors must now have a "vision" rather than simply being competent managers of the capital represented by urban infrastructure and facilities. Urban planners often promote this confusion about mayors' missions. They pretend that a city is a complex object that must be designed in advance by brilliant specialists. They would then impose their design on the city's inhabitants who lack vision and genius.

In recent years, the mayors' vision expressed itself through qualifiers that changed like fashion: sustainable development, the smart city, the resilient city, the livable city, and more recently, the

post-pandemic city. These slogans had the advantage of having a positive connotation without incurring a quantifiable obligation on the politician who proclaimed them. Of course, no one can be against sustainable development or cities being smart. But there are no measurable indicators to prove that a proposed urban policy guarantees sustainable development more than another. Thus planners can easily justify initiatives that tend—for instance—to either increase urban density or reduce it, all in the name of sustainable development, livability, or resilience.

Therefore, we should welcome the innovation coming from the Municipality of Paris, which, by promoting the city of 15-minute, proposes a "vision" that already contains its performance indicator. Carlos Moreno, "Professor of Universities, expert in cities," is the inspiration and leading promoter of the 15-minute city that has become the official policy of Anne Hidalgo, Paris' mayor, since her reelection campaign in March 2020.

Why should we bother to test the feasibility of a political slogan used during a campaign for the reelection of a Paris mayor, even if this campaign was successful? Because strangely enough, the idea of a 15-minute city is taken very seriously across the urban world. It is becoming the motto of many cities and the object of many articles in prestigious press like the New York Magazine, the Washington Post, The Guardian, and the Financial Times¹.

¹ Justin Davidson, "The 15-Minute City: Can New York Be More Like Paris?" *Cityscape*, New York Magazine, July 17, 2020,

Haisten Willis, "See you in 20 (or less): Living where access is within a short walk or bike ride", *The Washington Post*, May 20, 2021

Kim Willsher, "Paris mayor unveils '15-minute city' plan in re-election campaign", *The Guardian*, Feb 7 2020

Natalie Whittle, "Welcome to the 15-minute city", *Financial Times*, July 17 2020

Jeremy Burke and Ramon Gras, "The Science behind the 15-Minute City", *Urban AI* | May, 2021

The 15-minute city idea has been repeated in many forms by mayors and planners worldwide—the latest, by an unsuccessful mayoral candidate for New York City during his primary campaign in May 2021.

Even a prominent urban economist like professor Ed Glaeser has been sufficiently alarmed by the spread of the 15-minute mania that he felt obliged to comment on it. In a blog, he wrote that the 15-minute city "*should be recognized as a dead-end which would stop cities from fulfilling their true rôle as engines of opportunity.*"

What is the 15-minute city? Carlos Moreno clearly defines it in his October 2020 TED talk:²

The idea is to design or redesign cities so that in a maximum of 15 minutes, on foot or by bicycle, city dwellers can enjoy most of what constitutes urban life: access to their jobs, their homes, food, health, education, culture, and recreation.

How can we accomplish this? The first city to adopt the city of the quarter of an hour was Paris. Mayor Anne Hidalgo suggested a "big bang of proximity" that includes, for example, massive decentralization, the development of new services for each borough.

The municipality of Paris, which has a population of 2.18 million, is the only one affected by this 15-minute policy. The municipality is the central part of a metropolis of 12 million inhabitants.

² https://www.ted.com/talks/carlos_moreno_the_15_minute_city?language=fr

Thus, the issue is clearly stated: for people living in the center of a metropolis of 12 million inhabitants, is it possible, or desirable, to limit their daily trips to journeys of less than 15-minute walk for all daily needs, including commuting to work?

And if we find that Paris' inhabitants do not limit their daily trips to 15 minutes walk, is this due to a scarcity of shops and jobs within walking distance, or is it a choice expressing different priorities than those promoted by the mayor of Paris?

I will evaluate the current accessibility of food shops, kindergartens, primary schools, and jobs and then compare their accessibility to the goal of a maximum of 15 minutes of walking.

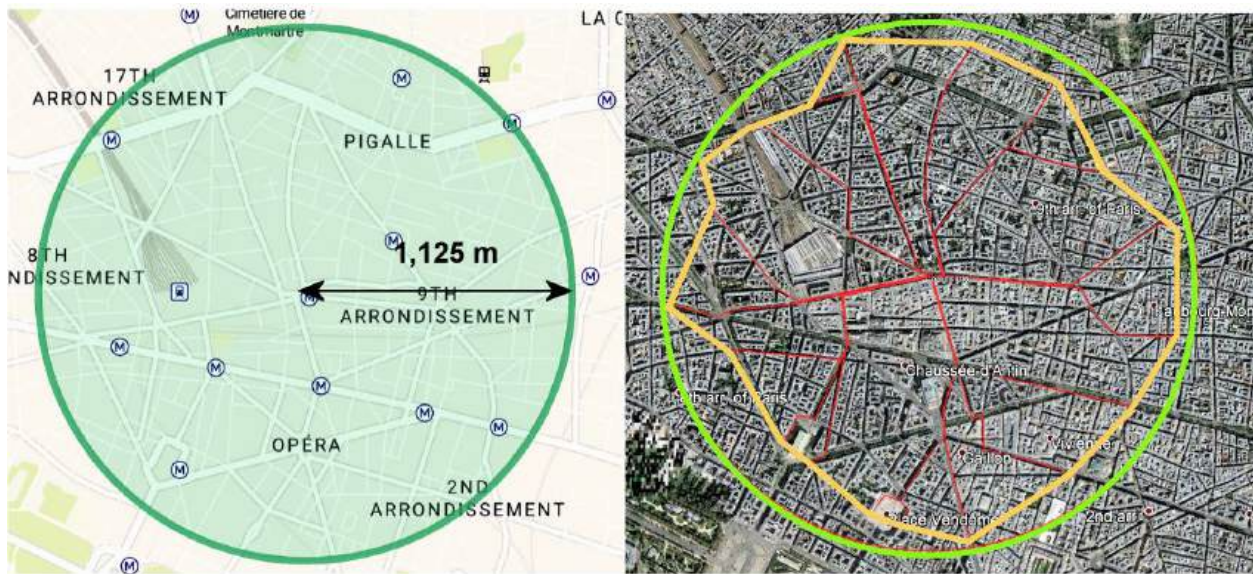
Suppose we find a big difference between the objective and the availability of shops and jobs within walking distance. In that case, we will ask ourselves what actions the Paris municipality can take to bring shops and jobs within walking distance. Formulating these actions will undoubtedly require imagination or perhaps even a municipal coup d'état because businesses, services, and jobs depend on private sector supply and demand. A municipality cannot create a bakery or a bar; it can only prevent its creation or restrict its location through regulations.

How large is an area accessible through a 15-minute walk?

A pedestrian walking on Paris' sidewalks moves at an average speed of about 4.5 kilometers per hour, i.e., covering 1,125 meters in 15 minutes.

To fulfill Professor Moreno's objectives, the establishments that provide the daily needs and jobs required by a Parisian household must be located within 1,125 meters of each home. That is, theoretically, within a circle of 1,125 meters radius, thus an area of 398 hectares. In

reality, considering the pattern of Parisian streets, access of 15 minutes is reduced to a polygon of about 300 hectares (Figure 1).



	Walking time minutes	Speed km/h	Radius of circle meters	Area accessible hectares
As the crow flies	15	4.5	1 125	398
Within Paris streets network	15	4.5		300

Figure 1 Surface accessible on foot in 15 minutes in the network of streets of Paris

A polygon of 300 hectares represents 3.4% of the inhabited area of the municipality of Paris (Figure 2). Therefore, Carlos Moreno's proposal is tantamount to suggesting that every Parisian family should have the choice to live in quasi-autarky on only 3.4% of the municipal territory! We will see from the data available that they already have this choice. So why is a "big bang" required?

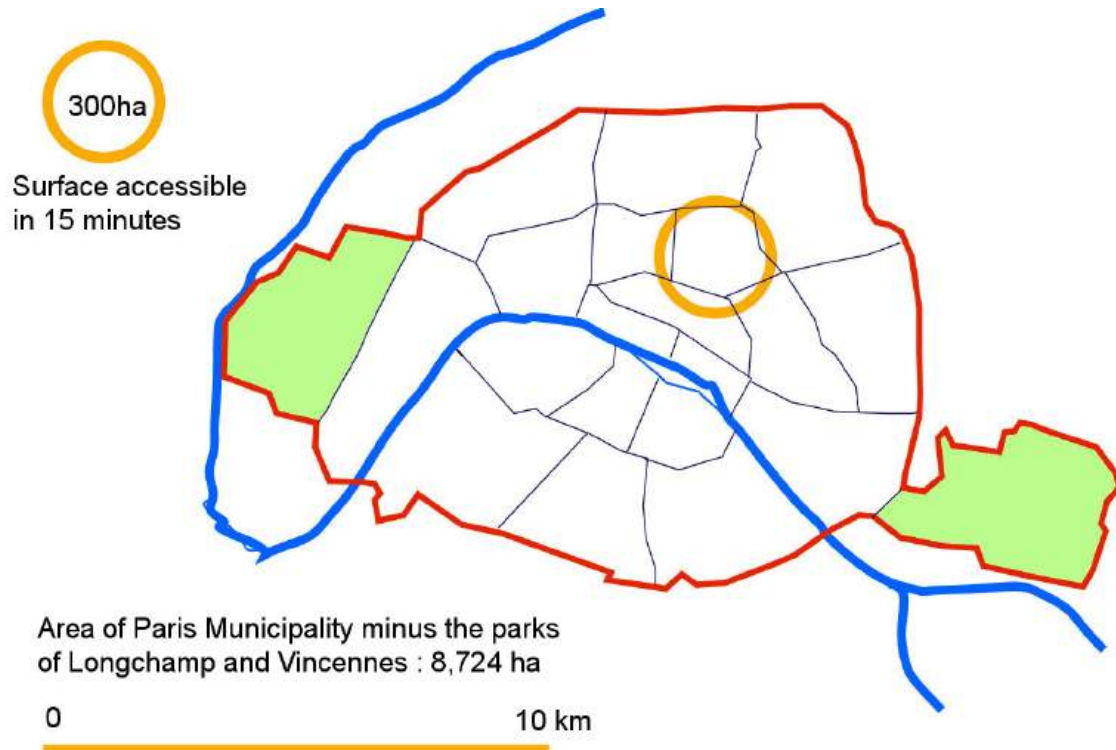


Figure 2 The surface covered potentially in 15 minutes of walking compared to the municipal limits of Paris

In Paris, let's count how many businesses, services, and jobs are currently available within an area limited to 300 hectares.

Access to food and education

Let's start by looking at the trips defined by Professor Moreno as "access to food, and education." Most grocery stores, bakeries, bars, and restaurants are privately owned. Therefore, their size and location are dependent on market supply and demand for these services. The municipality has no legal means of creating and managing a bakery, for example, or to decide its location. The number of food shops within a 300-hectare perimeter, corresponding to a 15-minute walk, depends on the density of the population within this perimeter and the market corresponding to this potential demand.

The average density of the inhabited area of Paris (256 inhabitants per hectare) implies about 77,000 inhabitants within a perimeter of 300 hectares. It is the population size of a small town. Therefore, we can infer that within the municipality of Paris, the residential density is such that a wide variety of shops will likely exist to serve a population within less than a 15-minute walk.

The Atelier Parisien d'Urbanisme (APUR) provides an accurate and up-to-date data source about Paris land use. In particular, this institution provides the location of every business in Paris sorted by detailed commercial sub-activity like grocery stores, restaurants, or even nightclubs.

APUR's studies of Parisian businesses confirm that within a 15-minute walk polygon, there is an average of 59 bakeries and 197 food shops³ (Figure 3). The APUR database also includes a map of restaurants in Paris. The density of restaurants allows walking access to a wide range of establishments. Therefore, it is not essential to "redesign" the city of Paris and "create a Big Bang of proximity" to ensure access to food in less than 15 minutes on foot. Professor Moreno would like to invent a new type of urbanism "where people can really meet and walk to the bakery"? Well, good news, this city already exists, it is Paris! And the abundance and variety of bakeries are not due to meticulous municipal planning but to market mechanisms. If Parisians were to prefer herring to croissants for breakfast in the future, the market would adjust, and herring merchants will gradually replace the bakeries without any "redesign" of Paris.

³ <https://www.apur.org/fr/geo-data/equipement-commercial-paris-2020>
<https://www.apur.org/dataviz/commerces-paris/>

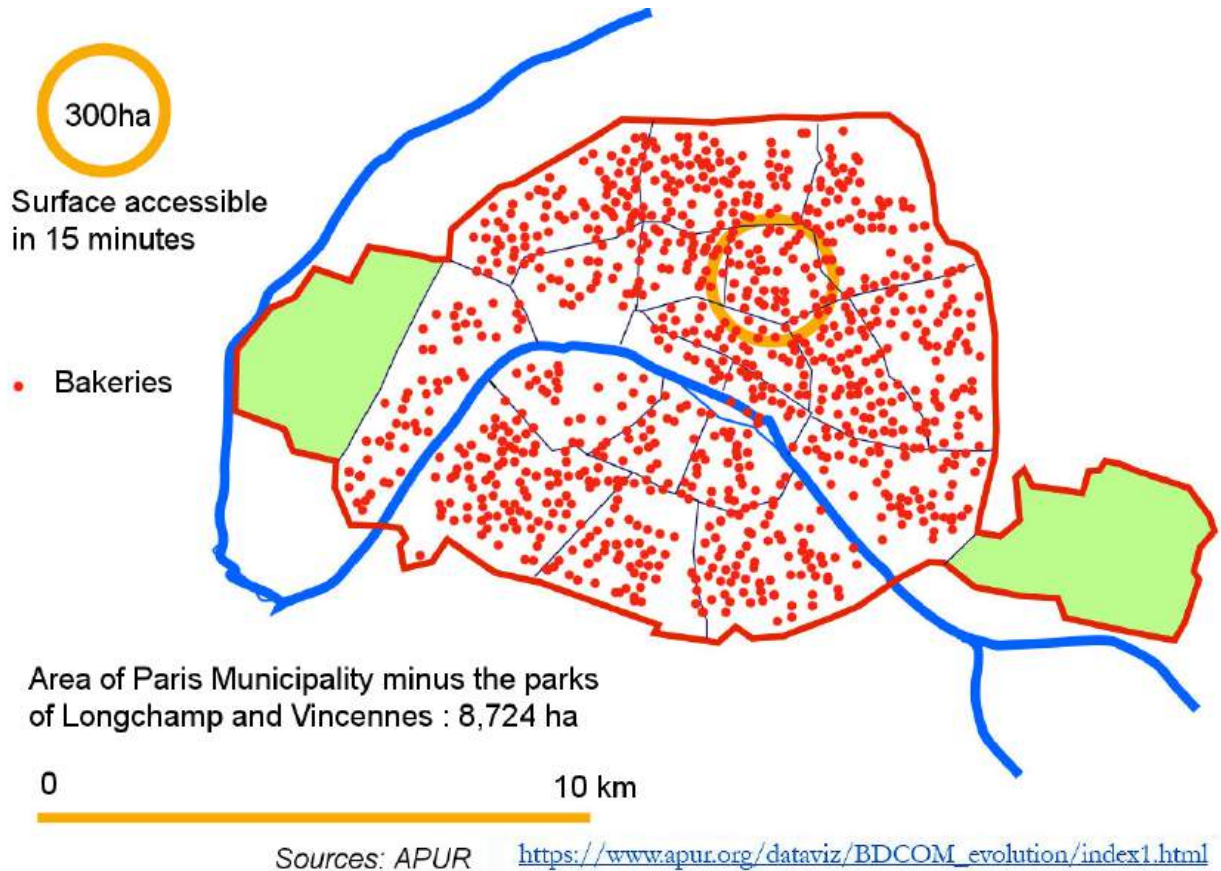


Figure 3: distribution of bakeries in Paris in 20173

The number and location of public kindergarten, primary schools, and other community services are linked to the demographics of the population served. They must meet the viability standards set by the Ministry of National Education: no schools with less than 100 students. The Paris rectorate, the state representative in Paris, decides on the openings or closures of classes for kindergartens and primary schools.

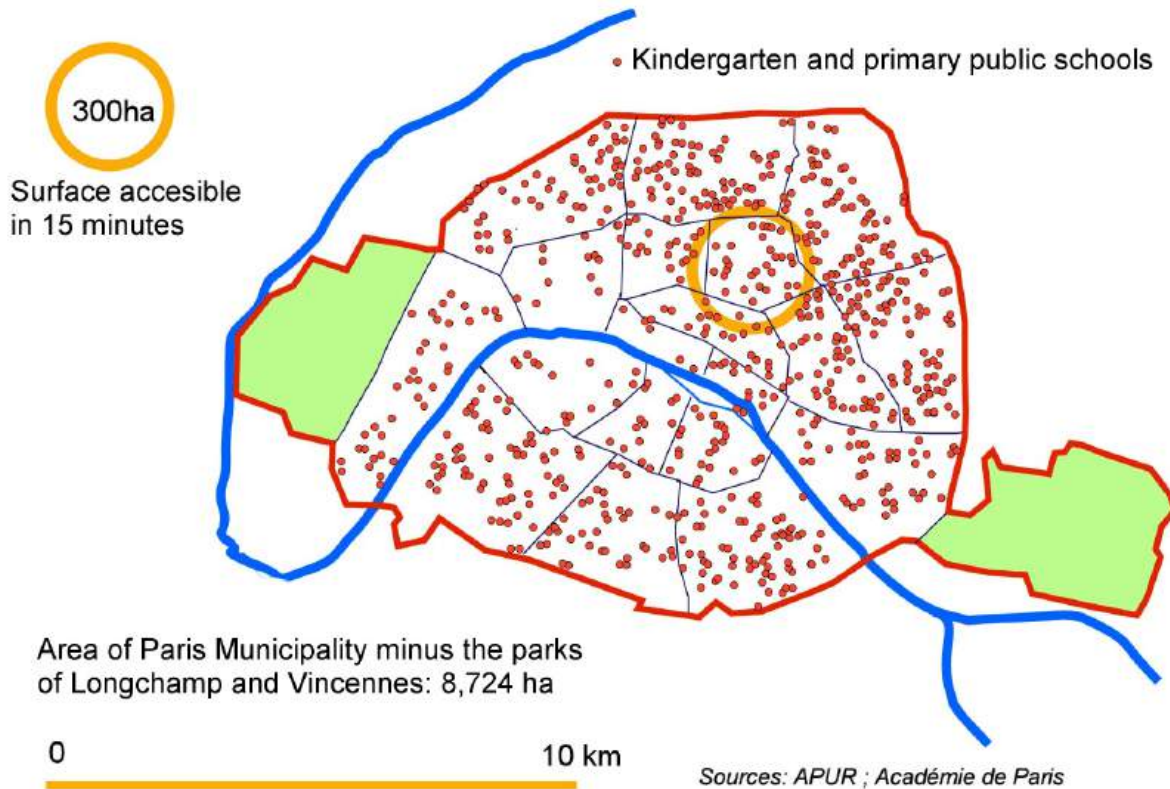


Figure 4 Kindergarten and Primary Public Schools

Figure 4 shows the distribution of kindergartens and primary schools in Paris. The difference in school densities, clearly apparent on the map, reflects the number of school-age children in the various neighborhoods. The rectorate has always been particularly attentive to the accessibility of schools. It constantly adjusts its numbers to reflect the rejuvenation or aging of the population of the different districts of Paris. Between 2015 and 2018, the rectorate closed twelve schools and opened five new schools in other neighborhoods. The demographics of the various arrondissements of Paris are not homogeneous and are often changing rapidly. The population of some communities is aging; in others, it is getting younger. An excellent article published in Le Monde

in 2019 showed the demographic problem confronting education in Paris.⁴

If the population continues to age, more schools will have to close. Consequently, the remaining schools will become less accessible than they are now. Keeping the density constant, the average distance to schools depends on the fertility of Parisian women. When fertility increases, this distance decreases; when it falls, the distance increases. As Paris municipality has not yet claimed control over women's fertility, the way the Chinese government does, the distance between households and schools does not depend on the mayor's fiat.

Nevertheless, we can see in Figure 4 that in all the districts of Paris, kindergartens and primary schools are still broadly accessible within a 15-minute walk from any point in the municipality. In addition, a significant number of students also attend private schools. Figure 4 does not include private schools.

Therefore, there is no need to "redesign" the city to ensure less than a 15-minute walk to schools! Instead, a competent body of public servants provides an optimum compromise between their accessibility and their educational viability when the neighborhood's demographics change.

Carlos Moreno's criteria are therefore not revolutionary for the city of Paris. Numerous essential food shops and schools are accessible within less than a 15-minute walk from any home. The high density of Paris and the absence of zoning separating functions allow this proximity.

⁴ « Paris empties its pupils: the map of primary schools that close ». Le Monde, Published August 28 2018 - Updated on 04 July 2019 https://www.lemonde.fr/education/visuel/2018/08/28/demographie-scolaire-a-paris-ces-ecoles-primaires-qui-ferment_5347198_1473685.html

The situation would be different in New York City, where detailed commercial zoning regulations may prevent the creation of food stores in streets where demand is high. For instance, New York City zoning regulations divide commercial districts into 72 subtypes, each of them modified by overlays. These regulations tightly restrict the floor area, and the products made, sold, or repaired in each type of retail establishment.

The walking accessibility for commerce and community facilities like schools would not be as evident in the Paris suburbs, where densities are much lower than within Paris municipality.

Carlos Moreno also talks about re-distributing cultural institutions such as visual arts, theatres, and shows. He recommends converting schools as community and cultural centers outside of school hours. He says he wants to make the school the main cultural attraction in the neighborhood. That seems more problematic.

How many Parisians prefer to attend a concert, a ballet, or an opera at a neighborhood school rather than the Garnier Opera House, Opera Bastille, or the Bataclan? The large number of concert halls in Paris, accessible by the metro and bus networks, offers a choice of shows of international quality. Do these prestigious establishments have to be replaced with neighborhood shows that will give the spectator the satisfaction of walking there and saving about twenty minutes on transport? Better access to cultural facilities might be desirable. Then, the municipality should create faster transportation to the major cultural centers of Paris rather than atomizing these centers by dispersing their shows and exhibitions in neighborhood schools!

Jobs and commuting to work.

Locating all jobs within a 15-minute walk from home creates a problem on a different scale than the location of food shops and education. Indeed, while the latter is already widely available in less than 15 minutes in Paris, the same is not true of jobs. The statistics provided by IAU Ile-de-France on the length of commuting to work (Figure 5) show that only 12% of Paris' working population access their jobs in less than 15 minutes. This is a pre-pandemic statistic and includes people working from home and commuters using walking, bicycles, and mechanized transports. However, the daily commute of 55% of employed Parisians exceeds 30 minutes.

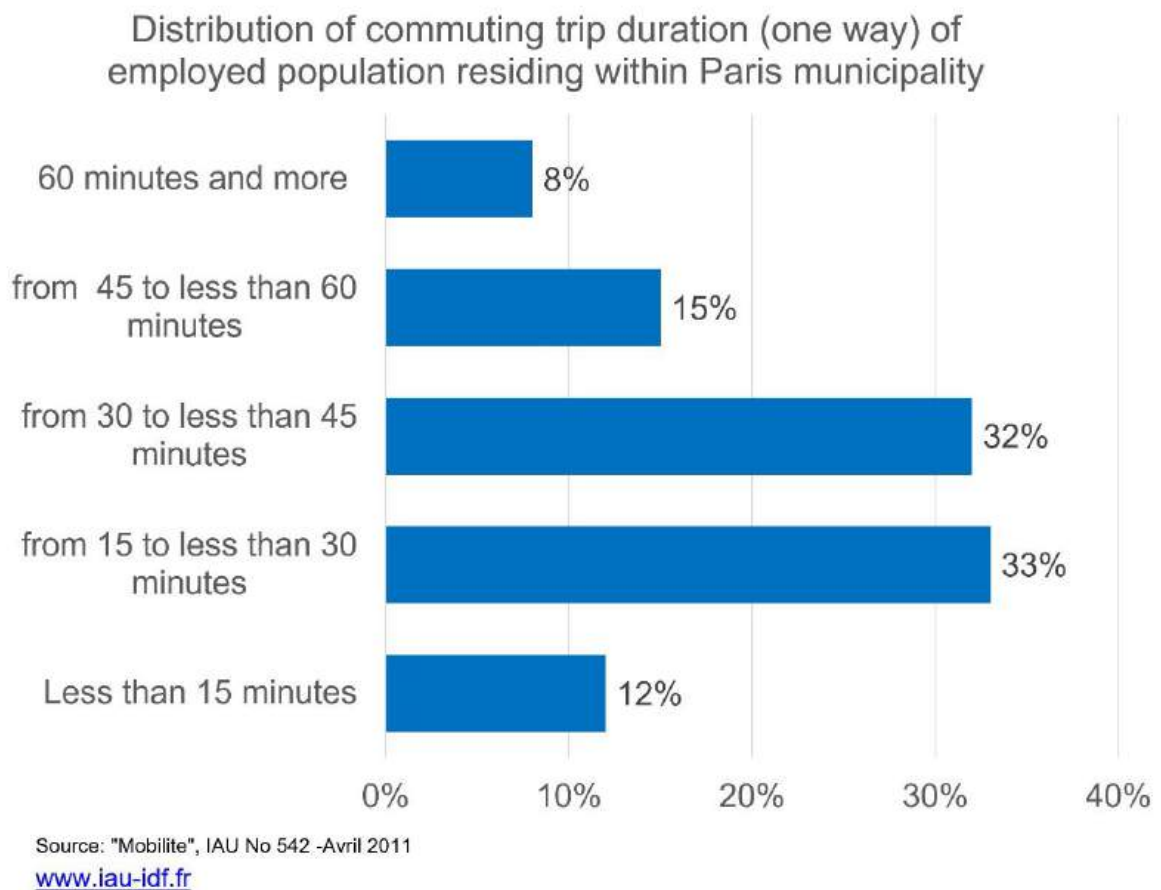


Figure 5 Travel time-work of Paris residents

Most commuters would certainly prefer shorter trips. Are planning regulations preventing job creation in Paris responsible for these long commutes to work? Or do Parisians make an optimal trade-off between travel time and the quality of the jobs they seek?

There are 1.8 million jobs in Paris for only 1.1 million active people. That 1.6 jobs per active Parisian! There is an average of 171 jobs per hectare in Paris. Except for the 12th and 16th arrondissements, which have a job density below 100 jobs per hectare. That is to say, a Parisian has access, on average, to about 51,300 jobs within a 15-minute walk of her home! This accessibility to employment in a maximum of 15 minutes walk varies from 21,300 jobs for a person living in the 16th arrondissement to 185,400 jobs for the 2nd arrondissement!

It is, therefore, not the lack of jobs in Paris that drives the workers to travel daily more than 15 minutes from home. Let's look at commuting to work by origin and destinations (Figure 6:) within Paris metropolitan area (the Ile de France region)

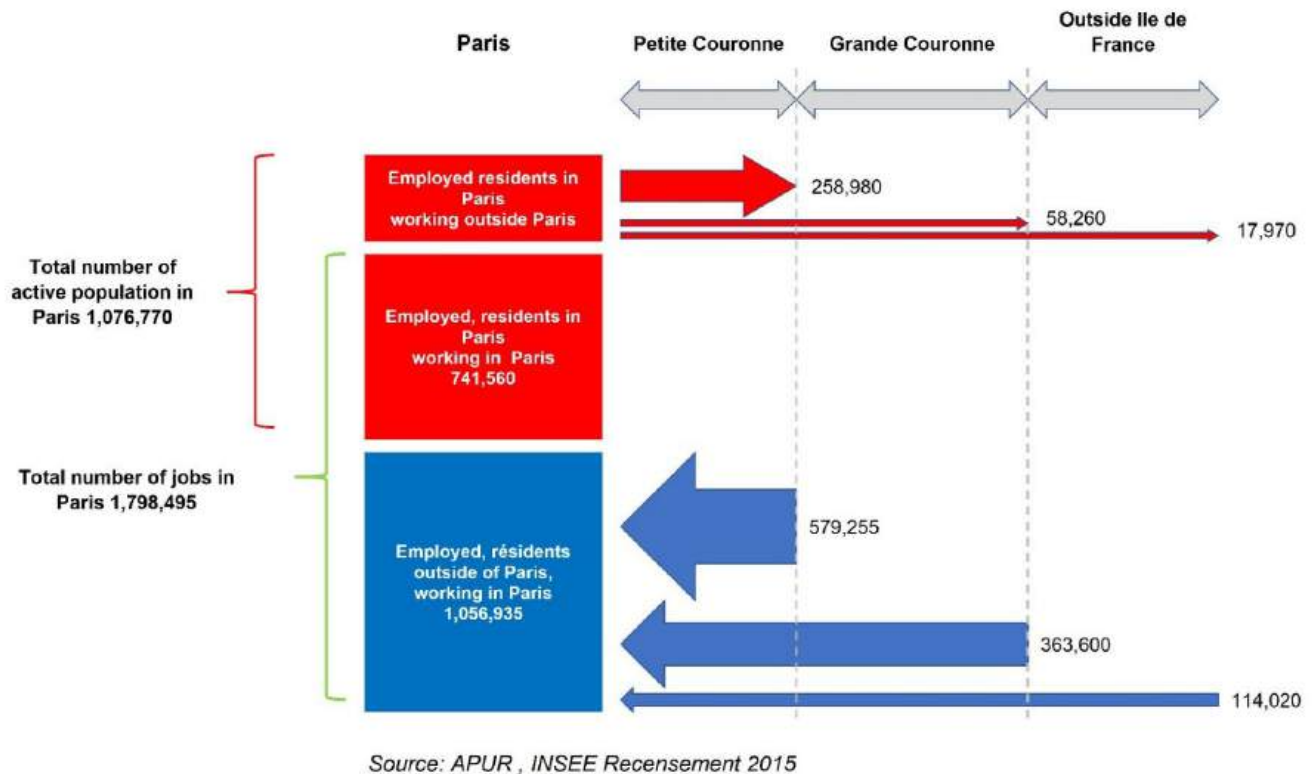


Figure 6 Home-to-work journeys for Paris residents and Paris-area workers working in Paris

The Ile de France region is traditionally divided into three zones: the municipality of Paris, the Petite Couronne, and the Grande Couronne; the latter areas correspond to the near and distant suburbs. Petite and Grande Couronne workers hold sixty percent of Paris's jobs. However, 30% of Parisians work outside the Paris municipality. And even 17,900 among them have chosen to work outside the Ile de France region, beyond the near and distant suburbs!

While many jobs are available within walking distance, many Parisians choose a distant commute that may seem like a paradox for Professor Moreno. Still, it is precisely how labor markets work in the world's major cities. Jobs in advanced economies are becoming more narrowly specialized. Employers in the Paris metropolitan area are looking for talents that best fit the available job positions. This search includes the 5.8 million active population in the metro area. On the

other hand, employees seek an optimal trade-off between the length of the journey and the benefits of the job they are looking for—interest in work, salary, quality of the work environment, the possibility of progression, stability, fringe benefits, etc.

Why doesn't a household move to live near the optimal job when it has found it? The home's location is also the object of an optimal trade-off between the various employment locations of possibly several active household members, the quality of schools, the residential environment, the housing price, etc. Each household decides on an optimal compromise. There is no average trade-off that is common to all households. This infinite variety of optimal compromises creates what Jane Jacobs calls "spontaneous self-diversification." These trade-offs can change throughout a household's life. The spontaneous order that governs how households locate within a metropolitan area results in an urban pattern that must be monitored often but cannot be imposed from the top. The policy of the mayor and the urban planner must therefore be to try to shorten travel times by improving the speed of transport and not to substitute for citizens to decide where they should live and work to shorten their trip length.

[The despotic temptation of democratic governments](#)

Professor Moreno suggests for all Parisians an optimal trade-off for their shopping habits, their children's education, their hobbies, and their job location. The optimum, for him, is what is within a 15-minute walk from your home! Spending 40 minutes on a subway or commuter train to work is not worth it; there are jobs near you, take them! Do you want to spend 25 minutes on a bus to go to the opera? Just go to the evening show at the local school!

To achieve the 15-minute city ideal, Professor Moreno proposes to "redesign cities" and promises a "big bang of proximity" for Paris. However, he doesn't develop these proposals further. Does it mean that he will declare victory without more action after doing his homework on the proximity of Paris' schools and commercial establishments? That will be the more benign outcome of his campaign. But what would the "Big Bang" imply when implementing the 15-minute commute to work? Is Professor Moreno a lifestyle guru who preaches a return to a simpler life where mechanized transport is unnecessary, or is he a planner à la Haussmann who intends to convince the mayor Anne Hidalgo to redesign Paris? It is reassuring to know that a mayor of Paris under the Fifth Republic does not have the power of Napoleon III!

The surprising thing about the concept of the 15-minute city is that the municipality of Paris promises changes in areas over which it has no power. The location of businesses and services and jobs depends mainly on the private sector and the laws of supply and demand. So it makes no sense to promise a job within 15 minutes walk from the home of every Parisian household.

On the other hand, the municipality is responsible for managing public space, which is by definition not subject to the rules of the market. In particular, the municipality must also define the optimum street area for pedestrians, two-wheelers, public transport, private cars, taxis, delivery trucks; and post-pandemic, how much of the sidewalk and street should be devoted to café and restaurant terraces. It's a complex problem. The municipality is also responsible for the urban environment, trees, parks, street furniture, cleanliness, safety, noise, pollution. There's no shortage of tasks. And these tasks also

require compromises that are difficult to establish equitably between different social groups.

Faced with the enormous difficulties of managing a city like Paris, one wonders how a utopian idea like the city of 15-minute could arise and impose itself. Is it a deliberate distraction? When the inhabitants of the historic districts of Paris complain about graffiti, or noise, pollution, the municipality responds by developing "new economic models that encourage small businesses" or by creating "production laboratories in sports centers" and "the transformation of schools into community centers in the evenings." It isn't easy to understand how these initiatives could respond to Paris' households' concerns!

Assuming that the 15-minute city remains a campaign slogan to entertain Parisians for a few months, it is undoubtedly an unfortunate distraction. But it is not a dramatic one because another will replace this slogan in a few months; there will be no "big bang," as we have seen.

But let us imagine that the mayor of Paris takes this 15-minute access policy seriously. Or that many citizens believe that it is possible to bring their job within a 15-minute walk from their house. They would want action to fulfill a campaign promise. The municipality may ask employers to prioritize employment for residents and ban suburban commuters from taking existing jobs within Paris.

Or maybe the municipality might "encourage" local jobs by giving a tax rebate to employers based on the number of employees who reside within a 15-minute walk from their job!

Thus, an initially laughable utopia could gradually turn into a petty tyranny that would gradually stifle the entire Parisian economy.

Unfortunately, this tendency from a benevolent democratic government to tyrannize its citizens for their own good is not new.

An American audience may find farfetched my hypothesis of direct government intervention in Paris' labor market to "encourage" a 15-minute commute. In the current French context, while unlikely, it is not inconceivable.

The mayor of Paris is already proposing to ban traffic crossing a central area of around 14 square kilometers (5.4 square miles). Motorized access will be allowed to residents, people with disabilities, and public transit, deliveries, or services within the new zone. It will make it illegal to drive across the city center without stopping. The ban will be enforced by issuing special permits for the people allowed to drive within the zone, permanently like the residents or temporarily like artisans or delivery trucks. Implementing these restrictions and the delivery of temporary permits will undoubtedly require creating a new bureaucratie that would be difficult to conceive outside of France.

There are many antecedents to direct government intervention in the job and retail market in the past. The French government in February 2000 imposed a 35 hours workweek for all businesses, and overtime was paid not in cash but in increased vacation time. To protect the financial viability of small bookstores, the government forbids large retail chains like FNAC (and later Amazon) to sell books at a discount. Publishers are obliged to print the price of books on their cover to prevent unlawful discounts.

Therefore, with these antecedents, it is not inconceivable that the national or local government may incentivize hiring workers within a walkable commuting time to fulfill a political campaign promise.

Already, Alexis de Tocqueville, in his book "Democracy in America," had titled a chapter "What kind of despotism do democratic nations have to fear?"⁵ He wrote of a democratic government that "reaches out to embrace society as a whole. Over it, it spreads a fine mesh of uniform, minute, and complex rules, through which not even the most original minds and most vigorous souls can poke their heads above the crowd. He does not break men's wills but softens, bends, and guides them. He seldom forces anyone to act but consistently opposes action. He does not destroy things but prevents them from coming into being. Rather than tyrannize, he inhibits, represses, saps, stifles, and stultifies, and in the end, he reduces each nation to nothing but a flock of timid and industrious animals, with the government as its shepherd."

I will remind an American audience who may find "over the top" this Tocqueville quotation that, just recently, a California judge has ruled that UC–Berkeley must freeze its enrollment so it can assess the ecological impact of its undergrads⁶. Henry Grabar's excellent article on the subject perfectly illustrates what Tocqueville feared on the part of democratic government: "*He seldom forces anyone to act but consistently opposes action.*"

⁵ Alexis de Tocqueville, *Democracy in America* volume 2, Chapter 6. translation by Arthur Goldhammer (Library of America)

⁶ <https://slate.com/business/2021/08/judge-rules-uc-berkeley-must-freeze-enrollment-under-environmental-regulation.html>

Alain Bertaud: Biography

Alain Bertaud is an urbanist and, since 2012, a senior research scholar at the NYU Marron Institute of Urban Management. He just completed writing a book about urban planning that is titled ***Order Without Design: How Markets Shape Cities***. This book published by MIT Press in November 2018.

Bertaud previously held the position of principal urban planner at the World Bank. After retiring from the Bank in 1999, he worked as an independent consultant. Prior to joining the World Bank, he worked as a resident urban planner in a number of cities around the world: Bangkok, San Salvador (El Salvador), Port Au Prince was (Haiti), Sana'a (Yemen), New York, Paris, Tlemcen (Algeria), and Chandigarh (India).

Bertaud's research, conducted in collaboration with his wife Marie-Agnès, aims to bridge the gap between operational urban planning and urban economics. Their work focuses primarily on the interaction between urban forms, real estate markets, and regulations.