ONLINE CONSUMPTION AND MOBILITY PRACTICES:

CROSSING VIEWS FROM PARIS AND NYC

QUANTITATIVE SURVEY

A study conducted by

6t-bureau de recherche

In partnership with

NYU Rudin Center for Transportation

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Context

Long ignored by political and research stakeholders, the transportation of goods and, in particular, urban logistics, are now essential for cities and urban planning. The advent of new information and communication technologies (ICT) is reshuffling the deck of this complex ecosystem by modifying production processes and people's daily urban trips, in particular, those related to shopping[1]. With the development of online shopping (or e-commerce), the Internet is now a supply method in its own right, inducing new relationships between people and their consumer space(s)[2]. In this respect, ICTs are seen as a means to considerably extent interaction potentials between the mobility of people and the mobility of goods; ultimately leading us to re-examine people's relationship to space and time.

Given the recent development of e-commerce and the diversity of stakeholders involved, of goods consumed and of related delivery methods, little empirical work currently exists on how people are changing their consumption practices and their mobility practices related to these purchases.

This finding led 6t-research office, in partnership with NYU (Rudin Center for Transportation), to conduct a large-scale exploratory survey, in order to obtain new data on the consumption and mobility practices of the population of Paris and New York City (NYC). The collaboration between 6t and NYU also involved several other experts, coming both from the academic and professional spheres. This consortium formed a steering committee which included city officials from Paris and NYC.

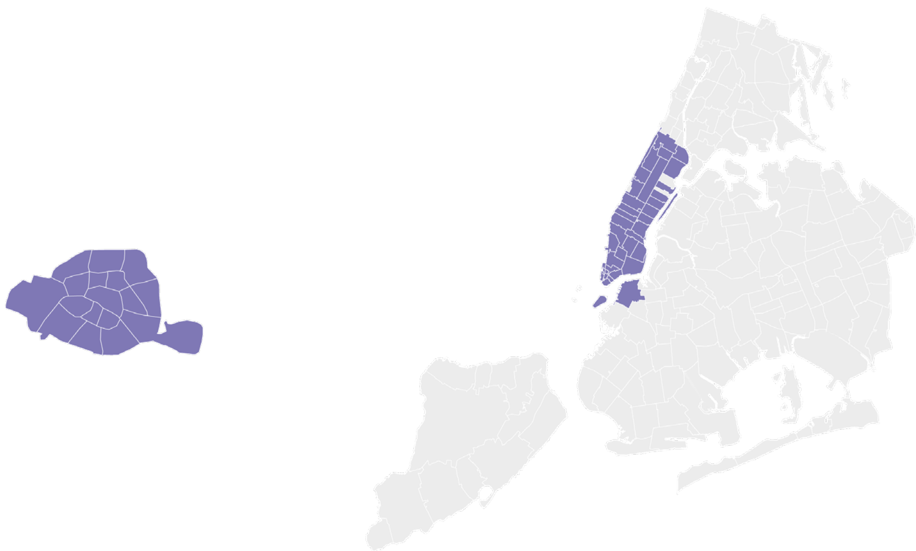
The objective was to contribute to the development of scientific and technical knowledge, particularly with regard to emerging practices in the rapidly evolving delivery industry, and in turn, to facilitate the understanding and assist the decision-making of public authorities.

[1] Moati, 2011
[2] De Coninck, 2010

Study areas

These two cities have major differences, in particular with regards to the spatial distribution of people and activities within the city: more generally, they have very different social, cultural, and institutional characteristics. Nevertheless, these cities also have many similarities: they are very large, dense cities with an extensive public transportation system, and digital technology is used by the majority of the population. These two cities are also very different from other cities in the countries in which they are located. Their international status and the flows (people, goods, and activities) they generate attract a great number of stakeholders and logistical services [1].

Figure 1: study areas—Paris (on the left) and New York City (on the right) [2]



Réalisation : 6t-bureau de recherche, 2018

[1] Laetitia Dablanc. *Entre police et service : l'action publique sur le transport de marchandises en ville.Le cas des métropoles de Paris et New York. Sciences de l'Homme et Société. Ecole Nationale des Ponts et Chaussées*, 1997. Français.

[2] In order to respect a homogeneous density between the two cities, the choice was made to limit the perimeter of Manhattan to the following areas: 10004 ; 10005 ; 10006 ; 10280 ; 10038 ; 10007 ; 10002 ; 10013 ; 10012 ; 10009 ; 10003 ; 10014 ; 10010 ; 10011 ; 10016 ; 10001 ; 10017 ; 10018 ; 10036 ; 10022 ; 10020 ; 10019 ; 10021 ; 10023 ; 00083 ; 10028 ; 10024 ; 10029 ; 10025 ; 10035 ; 10026 ; 10027 ; 10044 ; 11201 (Brooklyn).

Chosen definition of e-commerce

There is a wide variety of more or less extensive definitions of e-commerce. Our research concerns the electronic commerce of consumer goods targeted to the general public, that is, to private individuals (*BtoC*[1]). Rather than focusing on one portion of the purchasing process or one type of online purchase, we want to understand all online purchasing practices of households, aggregated with all of their mobility practices. Although more marginal considering the extent of the flows and turnover than inter-company trade (*BtoB*), e-commerce could, nevertheless, have an impact on consumption practices and, in turn, on delivery practices.

Glossary

Online purchasing	Or "e-commerce". Commercial transaction made online on a merchant website.
B2B or BtoB	"Business to Business" refers to the e-commerce of goods to individuals.
B2C or BtoC	"Business to Consumer" refers to the e-commerce of goods to individuals.
Drive-through	Derived from "drive". Qualifies a place where the customer picks up purchases ordered on a brand's "drive-through" website at a given time slot. Car drives through is the most common model in France.
Locker	Smart room or mailbox that allows you to pick up/drop off packages up to 24/7. In a secure closed space, in-store, or directly in the public space.
Click and Collect	Act of ordering or reserving store items online and picking them up at the store. Not to be confused with a conventional in-store purchase. In the case of click and collect, the goods are withdrawn from the store's stock. In the case of a pick up from a store, the goods are transferred from a warehouse to the store, which is then used as a pickup point for the customer.
Click and Mortar	Historic stakeholder which has added online activities (click) to its conventional model (mortar). Examples: Home Depot, FNAC, or Darty.
Courier	Delivers an express package on foot or by bike, moped, and/or public transportation. The average delivery time is two hours in urban areas but it is tending to be shorter. E-commerce start-ups rely on couriers for their logistics.
Delivery time	The time between order confirmation and delivery of the package. There are three logistics stages: order to pick, delivery, and

[1] BtoC, "Business to Consumer"

	package receipt.
Instant delivery	Same day delivery of the order where the customer can receive their order in less than two hours through a digital platform
Multi-channel	The same customer uses several distribution networks, whether physical (store) or virtual (website, mobile site) depending on the product.
Picking	Online purchase after visiting a store to choose the item; online purchase and store pick-up
pickup point	Local stores or service to which delivery employees deliver or collect parcels. Examples: UPS, Relais Colis, Mondial Relay.
Pure Player	“Everything online”. Business which only has an online activity. Examples: Amazon, Ventes Privées
Show room	The consumer goes to a physical place of sale before ordering online.
Logistics start-up	Start-ups developing an activity on the last meters/miles using systems that link couriers (professional or not) to a platform. These solutions contribute to the emergence of instant delivery practices in major urban centers. Examples: Stuart, Deliver.ee, Drivoo, Tok Tok Tok.

Sample Description

The online survey was administered between the months of October and November 2017. A total of 2212 responses were thus initially collected. After a data cleaning process and the deletion of incoherent responses, the final sample included 2178 respondents, amongst whom 1290 were Paris residents and 888 lived in New York City. Respondents to the survey[1] were selected so as to constitute a representative sample by using the so-called "quota methodology". Quota-related sample imperfections led to an adjustment of variable weighting, so as to ensure the sample's representativeness in terms of:

- Age, gender and occupation for the Parisian sample (based on 2013 INSEE data for Paris);
- Age, gender and household income[2] for the NYC sample (based on 2010 US Census data).

Other descriptive statistics relate to and allow to grasp the panel's socio-demographic characteristics (*see annex 0*): household composition and size, level of education, diplomas, access to digital devices and digital practices.

Table 1 summarizes the sample's main socio-demographic attributes, according to the city of residence.

[1] A detailed description of panel characteristics may be found in the methodological appendix (22.1).

[2] For this study, income was expressed per consumption units (CU) rather than per person, so as to better reflect the individual's standard of living. A methodological addendum may be found in the methodological appendix.

Tableau 1 Description of the sample by city

Descriptive variable	Categories	Paris N=1290	New York N=888
Gender	Man	46%	47%
	Woman	54%	53%
Age	18–24	12%	13%
	25–34	23%	26%
	35–45	18%	17%
	45–54	15%	15%
	55–64	14%	13%
	65+	19%	16%
Occupation	Artisan, commerçant, chef d'entreprise	5 %	19 %
	Cadre et profession intellectuelle sup.	42 %	24 %
	Profession intermédiaire	22 %	18 %
	Employé	20 %	12 %
	Ouvrier	7 %	11 %
	Autre	4 %	16 %
Activity	Students	11%	8%
	Working part-time	10%	12%
	Working full time	51%	59%
	Retired	19%	13%
	Other (looking for a job, …)	9%	8%
Household composition	Living alone	36%	33%
	Co-living	3%	10%
	Single parent	5%	7%
	Couple (w/o children)	27%	29%
	Couple with children	22%	18%
	Living with parents	7%	7%
Digital profile	Internet access at home	98%	97%
	Smartphone possession[1]	90%	93%

[1] Smartphone equipment has been found to be overall exceptionally high, suggesting a bias in sample selection

Mobility profile

Table 2 summarizes the main features relating to the panel's mobility equipment.

While the majority of surveyed individuals in Paris and in NYC hold a driver's license, almost half of them do not own a car: 44% of Parisians and 56% of Manhattan residents declared that they have no car in their household. But the percentage of carless households remains below the average ratio both in Paris and in NYC: the studied population owns cars at a higher rate than the general population in each city. By comparison, according to the latest (2014) INSEE data[1], the household car ownership rate in Paris was 36.8%, meaning that 63.2% of households did not own a car, against a 44% share within our sample. Individuals without a car in their household are also underrepresented in NYC, where the 2015 US Census[2] finds that 76.6% of households do not own a car, against 56% in the sample. These above-average car ownership rates may partly ensue from the study's specific geographical scope and from the singular sociodemographic features of the sampled population.

New Yorkers own cars at a lower rate than Parisians. Yet, when they do own a car, they use it more frequently. Indeed, 1/3 of New Yorkers report driving their car almost every day, while only 11% of Parisians declare the same. In Paris, the diversity of alternative mobility offers and the relatively low price of resident parking permits[3] seem to encourage on-street parking of seldomly used cars over long periods of time, more than in NYC.

A majority of Parisians (69%) and New Yorkers (55%) have a monthly or annual public transit pass. The populations, however, differ drastically regarding bus use. Parisians tend to take the bus far more frequently than New Yorkers: while a third of Parisians takes the bus almost every day, against less than one in five New Yorkers. Although a fairly high rate of surveyed New York residents have a public transportation pass, they tend to use this mode rather occasionally. 19% of them take public transit only 1 to 3 times a month (against 13% of Paris residents) and up to 9% never use it. By contrast, only 2% of Parisians report never taking public transportation. The lower use of public transit in NYC may be due to a multitude of setbacks affecting the NYC subway system in the last several years, with adverse consequences on service reliability and punctuality[4].

Regarding the use of shared mobility modes, we note that nearly 10% of Parisian respondents and 20% of New-York residents subscribed to a carsharing offer. These particularly high rates even exceed the observed values regarding the Paris-based Autolib car-sharing system penetration (before its shutdown): in 2017, 4.5% of the Parisians used Autolib'. These abnormally high values suggest that a sampling bias might have resulted from respondents' confusion

[1] https://www.insee.fr/fr/statistiques/2012694#titre-bloc-1
[2] U.S. Census Bureau, 2015 American Community Survey 1-Year Estimates. Data compiled by the Tri-State Transportation Campaign. Source: http://blog.tstc.org/wp-content/uploads/2017/04/how-car-free-is-nyc.pdf
[3] In Paris, the residential parking pass, which costs 45€/year and 90€/3years, allows its holder to park their vehicle pour 1,5 euros par jour ou 9 euros pour 7 jours dans les rues autour de son domicile.
[4] TransitCenter, Fixing New York City's Buses, July 2016

between existing services. In fact, people still tend to mix up car-sharing with ride-sharing. The over-representation of car-sharing users within the sample might also proceed from the survey administration method: compared to the general population, respondents to online survey tend to also be more open to emerging transportation modes.

An exhaustive account of characteristics and frequency of use for each transportation mode in Paris and in NYC may be found in the appendix.

Table 2: Summary table of mobility equipment for the Paris and NYC samples

	PARIS	NEW YORK
	+ Driver's license: **79 %** + Households with no car : **44 %** + 1 PC : **46 %** + 2 PC or more : **10 %**	+ Driver's license : **81 %** + Households with no car : **56 %** + 1 PC : **32 %** + 2 PC or more : **12 %**
	+ Personal bike : **47 %** + Subscription to Vélib' : **18 %**	+ Personal bike : **43 %** + Subscription to Citibike: **16 %**
	+ Monthly or annual RATP pass : **69 %**	+ Monthly or annual MTA pass: **55 %**
	+ Subscription to a carsharing service: **10 %**	+ Subscription to a carsharing service: **19 %**
	+ Smartphone: **90 %**	+ Smartphone: **93 %**

Source : 6t-bureau de recherche, 2018 sur un échantillon de 2 178 répondants résidant à Paris et New York

What you will find in this report

This report presents the results of a web-based survey diffused via an "*access panel* "in the fall of 2017. Conducted on a representative and weighted sample of 2,178 individuals, the questionnaire tackles consumption, delivery and mobility practices. The survey aims at comparing online consumption practices of Parisians and New Yorkers, focusing particularly on:

—**Identifying the profiles of e-consumers in Paris and in NYC:** the objective is to paint the sociodemographic portrait of e-consumers in 2018, and to analyze their motivations for engaging in online purchasing. The study also intends on determining how certain sociodemographic determinants might influence online consumption habits, and to find out the differences and similarities between the two samples of online consumption.

— **Identifying the characteristics of online consumption practices and of instant delivery**: buying non-food goods online is becoming a common and diffused practice, and makes up an ever-increasing proportion of urban delivery needs. What are the determinants of online purchasing practices in Paris and in NYC? How frequently do individuals buy non-food related goods online in each city? What are the impacts of this type of online consumption on delivery methods?

—**Identifying the characteristics of online grocery shopping (in-store or online**): the progressive hybridization of e-commerce and physical trade alters the relationships between people and their consumer space(s). The objective is therefore to understand the motives for grocery shopping online instead of buying them at the store.

—**Identifying the characteristics of at-home meal delivery:** how may this practice, which has been mushrooming in both cities, be grasped? What are the motivations for ordering a meal at home (or at work) from a cater or a restaurant? What are the impacts of ordering meals at home on eating out at restaurants?

—Estimating the impacts of online consumption practices on mobility practices: does e-commerce allow individuals to optimize their purchase-related trips? What are the impacts of this practice on personal car use? Are online consumers also users of new transportation modes?

Key Lessons Learned

Understanding consumers' purchase-related trips have allowed us to better address changes in delivery practices and outline their potential impacts on the daily mobility of urban dwellers, and their relationships to time and space. New delivery options (and those to come) are changing consumer activity paths, which are no longer solely polarized by precise, grounded locations (hypermarkets, local stores) but fragmented in space and time. This is particularly well exemplified by the takeoff of instant delivery services in city centers.

Summary of part 1: The Weight of E-Consumption in NYC and Paris

The first part of this report compares the practices and determinants of the online purchasing of material items[1] in Paris and in NYC. This section will also discuss the impact of new delivery methods (same day or even under 2 hours) on online consumption behavior. The survey provides new data regarding Parisians' and New Yorkers' online, non-food related consumption practices, analyzed on the basis of their purchases over the year of 2017, and focusing, more specifically, on their latest purchase.

Online consumption is an extremely common practice within the sample: In 2017, 97% of New Yorkers and 95% of Paris respondents bought a non-food related item online. Clothing (including accessories and shoes) is the main type of product purchased (cited by 82% of New Yorkers and 67% of Parisians), far ahead of healthcare and wellness products (respectively 58% and 37%) and cultural items (48% and 53%). **Motivations for buying online relate to price, the diversity of choice and trip avoidance.** New Yorkers make online purchases significantly more often than Parisians**.** Couples with children engage more frequently in non-food related e-commerce than people living alone. 13% of Parisian families shopped online at least once a week, compared to only 6% of persons living alone. This phenomenon was found to be particularly pronounced in NYC, where 47% of families declared buying items online at least once a week, while that share barely reached 18% amongst one-person households. In Paris, 13% of families declared a weekly online shopping practice, against only 6% of persons living alone.

Regarding the surveyed populations' choice of item reception method, at-home delivery was the most widely used option by both Parisians and New Yorkers in 2017. In both NYC and Paris, more than one e-consumer out of two opts for at-home delivery.

Several significant differences between the cities may be, however, noticed, notably regarding the collection of ordered goods from pickup points. The latter practice was cited 9 times more amongst Parisians (64%) than amongst New Yorkers (7%). The proximity to a pickup point seems to be the pivotal factor leading up to the choice to collect a package in that manner. The survey also provides precious insights regarding the relatively new phenomenon of combining several delivery options upon ordering online: 15% of NYC respondents and 9% Parisians accessed their goods using more than one delivery method. This complexifying nature of practices likely stems from the swell online purchasing on *marketplaces,* which allow consumers (without them being necessarily aware of it) to buy goods on major e-commerce websites (Amazon, BestBuys, etc.), but from independent sellers, a process implying several different delivery services.

[1] Grocery shopping excluded, since that subject is dealt with in the second part of this report.

The survey also focuses in greater detail on the use of instant deliveries (on the same day or within two hours following the order). 37% of New Yorkers and 26% of Parisians have already used a same-day delivery or collection option. Motivations for opting for instant delivery allow to distinguish two types of e-consumers, according to the city of residence. NYC e-consumers tend to be ready to pay more in order to get their package quickly and so as to avoid going to the store (36% of the sample against 23% of the Parisian sample). Parisian e-consumers are typically willing to take a trip to the pickup point or an automatic locker in order to claim their parcel rapidly (28% of Parisians against only 16% of New Yorkers).

14% of New Yorkers and 9 % of Parisians select instant delivery as their delivery method. When they chose receive their ordered item within 2 hours, Parisians were significantly more likely to collect their parcel themselves, at a pickup point (17% compared to 11% of New Yorkers), whereas New-Yorkers preferred at-home delivery (22% against 9% of Parisians).

Summary of part 2: Online Grocery Shopping Practices in NYC and Paris

The progressive hybridization of e-commerce and physical trade alters the relationships between people and their grocery shopping space(s). This second part deals specifically with the links between online grocery shopping practices and their associated delivery practices. This section also examines how people who shop online for groceries situate this practice, compared to traditional, physical trade.

About three quarters (73%) of New Yorkers and more than half of Parisians (51%) have already shopped for groceries online. Still, the majority of them continue to shop for groceries in-store more frequently than online. Young couples with children especially tend to engage in online grocery shopping. They make up respectively 27% of Parisians and 29% of NYC respondents. A third of Parisians and a quarter of New Yorkers belong to that type of household, shop online for groceries on a weekly basis. **In order of importance, the determinants of online grocery shopping include time saving, avoiding carrying groceries and an interest in special offers.**

The purchase of groceries online does not imply the all-together disappearance of in-store purchasing practices. The phenomenon may more accurately be grasped as a fragmentation of grocery shopping practices, hence potentially resulting in more shopping-related trips amongst online grocery shoppers. This holds particularly true considering that the more intensive the online shopping practice, the more frequent trips to the grocery store. The purchasing of groceries online does not imply the all-together disappearance of in-store purchasing practices. Only 3% of both Paris and NYC residents no longer take trips to the grocery store since they have started shopping for groceries online.

The study also puts forward an analysis of characteristics and determinants of home meal delivery, a booming practice in both cities. 67% of Parisians and 90 % of New Yorkers surveyed have already ordered a meal and gotten it delivered to their home, workplace or study place. The use of food ordering apps is as common amongst Parisians and New Yorkers who order meals (76% and 75%, respectively).The use of meal applications is found to be more intensive in NYC than it is in Paris. This tendency is accentuated as far as students and the working population are concerned, two sub-populations who, in Paris, engage in such practice in more occasional a manner than in NYC. Another difference relates to the motivations of at home meal order: Parisians cite the abundance of choice as the main reason for using food-delivery applications, whereas New Yorkers primarily value the seamlessness of payment procedures. Lastly, the survey finds that a third of New Yorkers and a fifth of Parisians declare that they eat out at restaurants less often than before they started using a meal-delivery apps.

Summary of part 3: Typology of E-consumers in NYC and Paris

This last part examines the connections between (food and non-food related) e-commerce and the physical mobility of private individuals, in a context where consumers gain access to an ever wider and diversifying array of both goods and related delivery methods. The potentially far-reaching environmental implications of e-commerce appears clearly, considering that this new means of consumption may change the nature of purchase-related trips. Some trips that would otherwise have been made to a shop may be substituted by logistics trips associated with the delivery of these goods; in that case, the development of e-commerce would not necessarily entail more virtuous travel practices.

This part thus explores the potential substitution effect existing between an individual's shopping-related trips and freight transportation trips in Paris and in NYC. First, we put forward a typology of e-consumers. The analysis of survey data enabled us to distinguish four relatively homogenous groups of consumers, based on the kind (food/non-food related) and the frequency of their online consumption practices. In that manner, we may single out: the **"aficionados,"** who engage in both grocery shopping and non-food related purchase online at a high frequency, and majoritarily composed of New Yorkers, the **"sporadic e-consumers,"** i.e. predominantly Paris residents, who tend to shop online occasionally; the **"old-school e-consumers,"** characterized by a frequent purchasing of non-food related items, but who shop for groceries online only occasionally or never; and finally the **"supermarket phobics",** a somewhat surprising group of Parisians and New Yorkers who often shop for groceries online but who rarely to never buy non-food related goods online.

This e-consumption typology allowed to identify a positive correlation between car ownership and car use, on the one hand, and online consumption practices on the other. The "aficionados," i.e. those with the most intensive and diverse online shopping practices, are indeed the most likely to both drive their own car and to use emerging mobility services. Furthermore, we find all these indicators to be positively correlated with income, suggesting that the latter is a crucial determinant of both online shopping and private car use. On the contrary, within groups that shop online less intensively, car use is found to be lower.

Considering that (both food and non-food related) e-consumption involves delivery trips that are, still, motorized for the greatest part, choosing at home (or at work) delivery may go against sustainable mobility. Integrating these observations with the analysis of Parisians' and New Yorkers' modal practices, we find that the impact of delivery-related trips widens the differences in terms of environmental sustainability. **This brings about the conclusion that online consumption practices do not modify mobility practices, but rather, reinforce them.**

Part 1: Online Shopping Practices in the Context of a Blooming Instant Delivery Sector

Parisians' and New Yorkers' shopping practices are undergoing fundamental changes. The emergence of the Internet as a new retail space raises the following question: what are the practices and uses developed by consumers who use this channel (amongst and against other options)?

E-commerce is becoming commonplace, regardless of the place of residence (dense urban, peri-urban, or rural); it has, however, become particularly widespread in large metropolises.[1,2] In France, the Federation for e-commerce and online selling (Fevad) estimates that the market for e-trade between private persons was worth 81.7 billion euros in 2017, and that 80% of French web surfers have already bought a good online.[3]

The diffusion of online consumption practices comes with an increasing fragmentation of flows of goods on the last mile/meter. Every day, around 200,000 goods purchased online are delivered to the people who ordered them.[4] Almost 1 million deliveries occur daily in NYC.[5] The concierges of large residential buildinga (with 800 residents) in NYC may collect up to 24,000 parcel per year, amounting to an average of 454 deliveries per week or 65 per day.[6]

In addition to diverse traditional package collection options, the logistics offers have also incorporated new on-demand services, meant to allow users to reduce their waiting time after purchase, especially in the major cities. Amazon even offers a delivery service within an hour following the online order placement.

The first part of this report compares the practices and determinants of the online purchasing of

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[1] IAU (2016), *Comment améliorer la performance logistique du e-commerce ?* Volet 2 : pratiques d'achat et livraisons sur internet des franciliens, novembre 2016

[2] Fevad (2017)– 2017 key data : http://www.fevad.com/wp-content/uploads/2017/06/chiffres-cles-2017_basdef.pdf

[3] *idem*

[4] APUR (2018), Note n°125 on last kilometre delivery

[5] Dablanc, L. et Frémont, A. (2015) *La métropole logistique.* Armand Colin.

[6] Rodrigue JP (2016), "Residential Parcel Deliveries: Evidence from a Large Apartment Complex", Metrofreight research project 5.1a.

material items[1] in Paris and in NYC. Cette première partie s'intéresse ainsi à la comparaison entre pratiques d'achat en ligne de biens matériels[2] à Paris et New York. We also discuss the impact of new delivery methods (occurring on the same day or even under two hours) on online consumption behavior.

[1] Grocery shopping excluded, since that subject is dealt with in the second part of this report.
[2] Hors du e-commerce alimentaire qui est traité dans la deuxième partie du rapport

1. Online shopping for non-food related goods: comparing practices in Paris and NYC

1. The weight of e-consumption in Paris and in NYC

E-commerce: a widespread practice in NYC and Paris

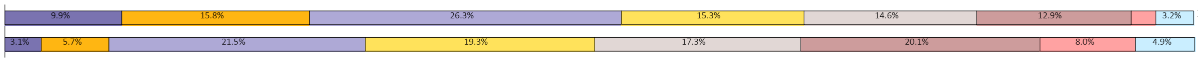
In 2017, 97% of New Yorkers and 95% of Paris respondents bought a non-food related item online.[1] The majority of the latter individuals shop for these types of goods recurrently, i.e. more than once a year. Even though online shopping for material items has become a commonplace activity amongst New Yorkers and Parisians alike, the two populations differ on the frequency of online consumption practices.

Survey results showed that New Yorkers make online purchases significantly more often than Parisians**.** More than a quarter (26%) of the former bought an item online at least once a week, against only 8% of the latter. Parisians tend to shop online more episodically: 28% of them reported doing so less than 5 times a year, against 15% of New Yorkers.

Table 3 Frequency of e-commerce practice per city

	Several times a week		Once a week		Two or three times a month		Once a month		5 to 10 times a year		1 to 5 times a year		Less often than that		Never	
	N	% cit.	N	% cit.	N	% cit.	N	% cit.	N	% cit.	N	% cit.	N	% cit.	N	% cit.
NYC	88	9.9%	140	15.8%	233	26.3%	136	15.3%	129	14.6%	115	12.9%	19	2.1%	28	3.2%
Paris	41	3.1%	73	5.7%	277	21.5%	250	19.3%	223	17.3%	260	20.1%	103	8.0%	64	4.9%

p = <0.01 ; Khi2 = 159.56 ; ddl = 7 (TS)

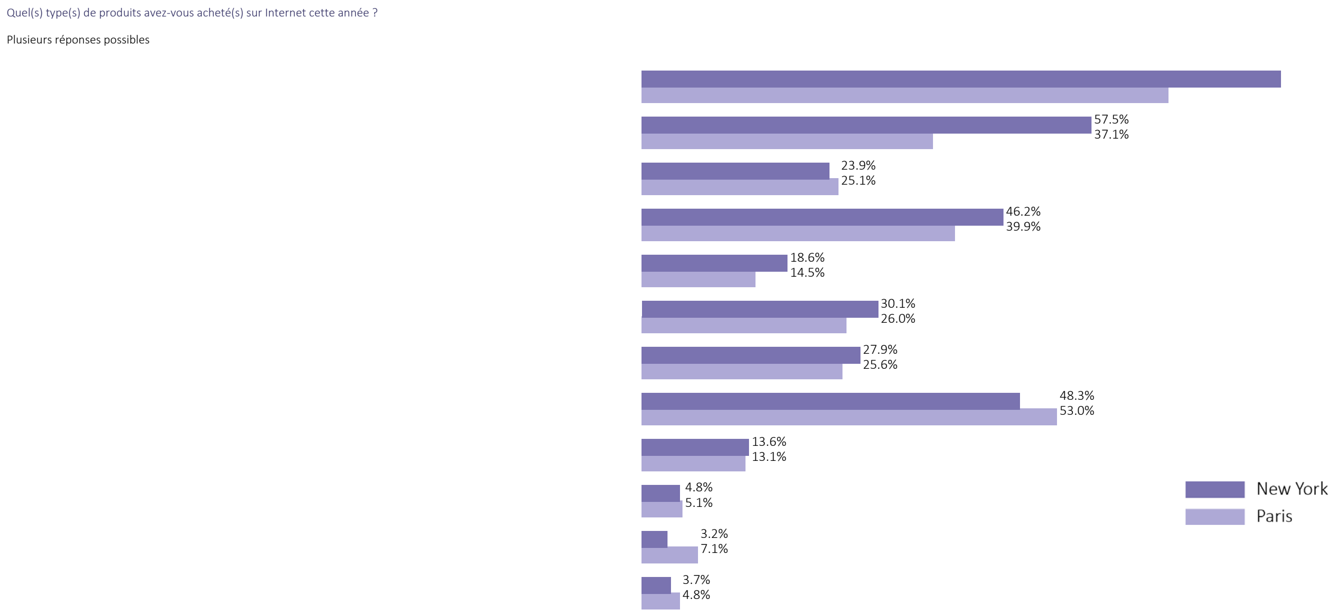


N= 2,178 respondents living in Paris and New York

According to survey results, clothing (including accessories and shoes) is the main type of product purchased[2] (cited by 82% of New Yorkers and 67% of Parisians), far ahead of healthcare and wellness products (respectively 58% and 37%) and cultural items (48% and 53%).

[1] Grocery shopping excluded. The subject will be treated in part 2 of this report.
[2] Grocery shopping, meal delivery and immaterial services (such as concert or plane tickets) excluded.

Table 4 Types of goods purchased by New Yorkers and Parisians over the year of 2017



n= 2,178 Parisian and New Yorker's e-consumers

The sociodemographic dimension of e-commerce practices

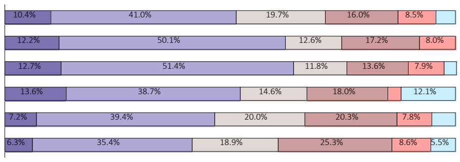
Online purchase frequencies also depend on consumers' sociodemographic attributes. The latter were found to be conditioned by the surveyed individuals' family profiles and incomes, and to vary according to the city of residence. Survey analysis showed that, first, and quite logically, online consumption practices are contingent on the degree of access to the Internet. The greatest part of survey respondents owned a smartphone (90% of Parisians and 93% of New Yorkers), and 97% of both Parisians and New Yorkers declared having access to a high-speed internet connexion at home.

Sharp dissimilarities in consumption practices may, however, be deciphered between couples with children and individuals living alone, and according to whether they reside in New York or in Paris. 47% of New York-based families declared buying items online at least once a week, while that share barely reached 18% amongst one-person households. In Paris, 13% of families declared a weekly online shopping practice, against only 6% of persons living alone. Adults living alone both in Paris and in New-York order items online very seldom (respectively 35% and 53% of them).

Tableau 5 E-commerce usage rate according to family profile in Paris

	Every week	Every month	5 to 10 times a year	1 to 5 times a year	Less often than that	Never
ʼour parent(s) or other caretaker	10.4%	41.0%	19.7%	16.0%	8.5%	4.4%
oommate(s)	12.2%	50.1%	12.6%	17.2%	8.0%	0.0%
ıartner with child(ren)	12.7%	51.4%	11.8%	13.6%	7.9%	2.7%
with child(ren)	13.6%	38.7%	14.6%	18.0%	3.0%	12.1%
ıartner without child(ren)	7.2%	39.4%	20.0%	20.3%	7.8%	5.3%
	6.3%	35.4%	18.9%	25.3%	8.6%	5.5%

0.01 ; Khi2 = 59.85 ; ddl = 25 (TS)

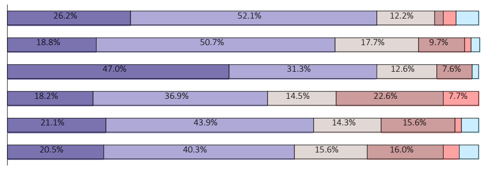


Sample of 1 290 respondents living in Paris

Tableau 6 E-commerce usage rate according to family profile in NYC

	Every week	Every month	5 to 10 times a year	1 to 5 times a year	Less often than that	Never
With your parent(s) or other caretaker	26.2%	52.1%	12.2%	1.9%	2.7%	4.9%
With roommate(s)	18.8%	50.7%	17.7%	9.7%	1.3%	1.7%
With partner with child(ren)	47.0%	31.3%	12.6%	7.6%	0.0%	1.4%
Alone with child(ren)	18.2%	36.9%	14.5%	22.6%	7.7%	0.0%
With partner without child(ren)	21.1%	43.9%	14.3%	15.6%	1.4%	3.7%
Alone	20.5%	40.3%	15.6%	16.0%	3.5%	4.1%

p = <0.01 ; Khi2 = 77.77 ; ddl = 25 (TS)



Sample of 888 respondents living in New York

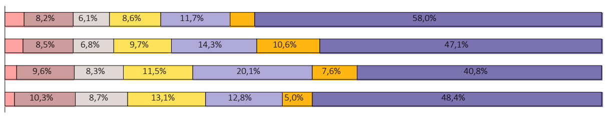
E-consumers’ income per consumption unit was found to be another pivotal factor shaping their online purchasing habits. Survey results confirm that high-income tend to buy online at significantly higher frequencies than low-income residents. This gap in the intensity of consumption practices is particularly acute in NYC, where high-income individuals (i.e. who earned between 100,000 $ per CU and made up 25% of the NYC sample) were 10 times more to declare they shopped online several times a week than high-income Parisians (2% of the Paris sample declaring between 2000 and 3000 euros/month per CU). Furthermore, more than half of low-income Parisians (58%) said they had never bought a good online, against ony a third of low-income New Yorkers (37%).

Tableau 7 E-commerce usage rate according to monthly income per unit in Paris

Fréquence de l'e-commerce selon le revenu

	Plusieurs fois par semaine	1 fois par semaine	2 à 3 fois par mois	1 fois par mois	Moins souvent	Essayé juste une fois	Jamais
Moins de 1 200€	3,3%	8,2%	6,1%	8,6%	11,7%	4,2%	58,0%
1 200€ à 2 000€	3,1%	8,5%	6,8%	9,7%	14,3%	10,6%	47,1%
2 000€ à 3 000€	2,1%	9,6%	8,3%	11,5%	20,1%	7,6%	40,8%
Plus de 3 000€	1,6%	10,3%	8,7%	13,1%	12,8%	5,0%	48,4%

p = 0,01 ; Khi2 = 34,21 ; ddl = 18 (S)

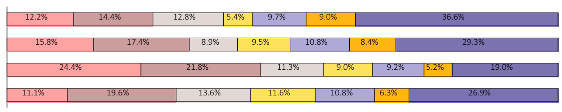


N = 1,135 respondents living in Paris who agreed to declare their monthly income

Tableau 8 E-commerce usage rate according to monthly income per unit in NYC

	Several times a week	Once a week	2 to 3 times a month	Once a month	Less often than that	I tried once	Never
Less than $20,000	12.2%	14.4%	12.8%	5.4%	9.7%	9.0%	36.6%
$20,000 - $50,000	15.8%	17.4%	8.9%	9.5%	10.8%	8.4%	29.3%
$50,000 - $100,000	24.4%	21.8%	11.3%	9.0%	9.2%	5.2%	19.0%
Over $100,000	11.1%	19.6%	13.6%	11.6%	10.8%	6.3%	26.9%

p = 0.002 ; Khi2 = 39.81 ; ddl = 18 (TS)



N= 888 respondents living in New York

2. Last purchase: who buys what and why?

Characteristics of e-consumers and their online shopping practices

In order to grasp, with greater accuracy, the motivations and the journey leading up to the delivery of an online purchased goods, the survey presented the consumers with a series of questions relating specifically to their last online purchase of a non-food related item.

The distribution of latest purchases by types of product acquired roughly reflected the annual distribution, with a predominance of clothing items, for more than half of New Yorkers (55%) and 43% of Parisians. Wellness, healthcare and luxury items ranked second, with a quarter of New Yorkers (26%) and 15% of Parisians citing this type as latest good purchased, followed by cultural products, in reversed proportion in the two samples (16% in NYC and 22% in Paris).

The "gender" variable informed on the differences in consumption-related behavior existing between women and men.

Focus: how do women and men consume?

The survey revealed diverging practices along the line of gender in Paris and in NYC.

Parisian women were shown to be particularly responsive to factors relating to monetary expenditures: 40% of them (against 33% of Parisian men) declare having made their last purchase "because it was cheaper or to take advantage of a special offer," (against 33% New York-based women and 32% of men living in New York).

Men, especially in New York, rather insist on their unwillingness to be constrained by the store's opening hours (respectively, 8% of Parisian men and 8% of New-York men, against 5% of Parisian women and 3% New York-based women).

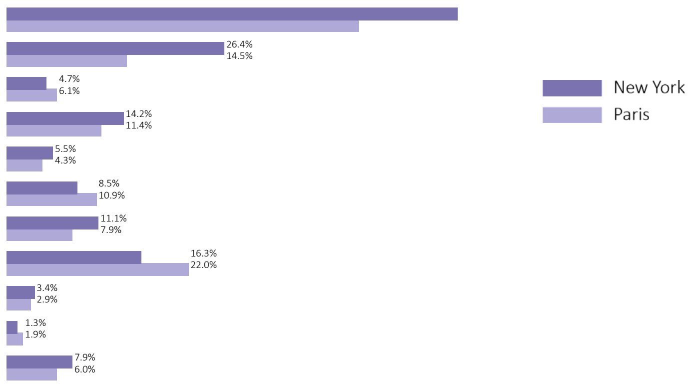
As far as types of products purchased are concerned:

- Women favored the acquisition of clothing (48% of Parisian women against 37% of Parisian men and 58% of New Yorker women against 50% of New-Yorker men), and of wellness and healthcare products (18% of Parisian women against 11% of Parisian men and 28% of New Yorker women against 24% of New Yorker men) during their last online purchase.

- Men's latest purchases were more often leisure-driven: they bought individual sports equipment and gear (4.5% and 5% of Parisian and New York men, respectively) at higher rates than women did (1.5% and 2% of Parisian and New York women, respectively). Men were also found to be more inclined to buy technology equipment, acquiring both smaller high-tech devices (17% of Parisian men against 6% of Parisian women and 12% of New-Yorker women against 6% of New-Yorker women) and large high-tech equipment (5% of Parisian men against 2% of Parisian men and 9% of New-Yorker men against 3% of New-Yorker women).

Age also influences online consumption practices. The youngest consumers (18–24 y.o.) were more likely to have bought clothing items during their last online purchase (63% of Parisians and 66% of New Yorkers). The eldest amongst e-consumers (65+y.o.) were found to be the greatest consumers of physical cultural goods (books, music, etc.) A marked difference did exist between the Paris and NYC samples regarding the latter type of product: more than a third (34%) of Parisians older than 65 indicated that their last purchase was a culture goods, against only a quarter (25%) of New Yorkers belonging to that same age category.

Tableau 9 Classification of goods purchased online during the last purchase



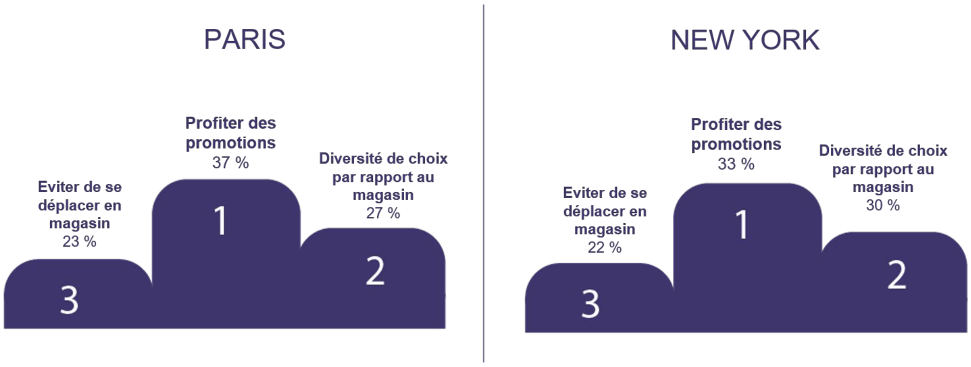
n= 2,086 Parisian and New Yorker's e-consumers

Motivations for e-commerce: price sensitivity and time saving

Up to now, the survey results have demonstrated that sociodemographic attributes and city of residence affect consumption preferences. But what were the motives involved in the consumers' last online purchase, ultimately pushing them to click the "order now" button? Comparing different incentives (time saving, money saving, product availability, avoiding a trip to the store, not having to carry the purchased goods) unveils the rationale behind a user's choice of having made their latest purchase online rather than in a traditional, physical store.

The most profusely invoked reason was price saving—a declared preference shared by Parisians and New Yorkers. The former, however, displayed a higher sensitivity to the price factor: almost 37% of them chose e-commerce over in-store shopping for their last purchase in order to benefit from an attractive price, while 33% of NYC residents justified their purchase on that basis. About a fifth of both samples mentioned avoiding a personal trip to the store as the motivation behind their choice of acquiring their last good via an online transaction.

Figure 2 Prioritisation of the determinants of online versus in-store purchasing in Paris and New York



n= 2,086 Parisian and New Yorker's e-consumers

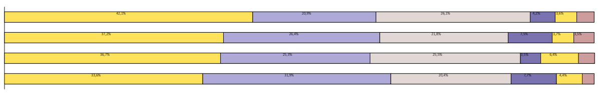
E-commerce allows Parisians and New Yorkers to compare and benefit from attractive prices, but also to avoiding taking a personal trip to the store. The latter reason corresponds an increased convenience and comfort, during the purchasing process (not carrying the bought items, not waring oneself out by walking to the store, etc.), ultimately also bringing about a gain in time, an improved capacity to manage time, or even monetary savings.

Survey results also showed that the quest for the lowest price is primarily a concern for indivuals with the lowest incomes, for whom special offers may first and foremost constitute a necessity (for 42% of Parisians whose monthly income is below 1,200 €/CU and 35% of New-Yorkers whose yearly income is below 20,000 $).

Tableau 10 Motivations for online shopping versus in-store shopping according to annual income per UC

	Car c'était moins cher / pour profiter d'une promotion	Parce qu'il y avait plus de choix sur Internet / pas de disponibilité en magasin à proximité	Pour éviter de me déplacer en magasin	Pour ne pas dépendre des horaires d'ouverture des magasins	Parce que le ou les articles étaient trop lourd(s)/encombrant(s)	Autre
Moins de 1 200€	42,1%	20,9%	26,1%	4,2%	3,6%	3,0%
1 200€ à 2 000€	37,2%	26,4%	21,8%	7,5%	3,7%	3,5%
2 000€ à 3 000€	36,7%	25,3%	25,5%	3,5%	6,4%	2,7%
Plus de 3 000€	33,6%	31,9%	20,4%	7,7%	4,4%	2,0%

p = 0,15 ; Khi2 = 20,64 ; ddl = 15 (PS)

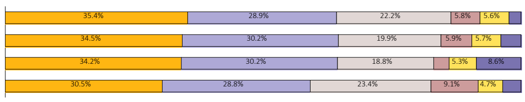


N=1029 respondents living in Paris who agreed to declare their monthly income

Tableau 11 Motivations for online shopping versus in-store shopping according to annual income per UC

	Because it was less expensive / to take advantage of sales	Because there were more options online / because my item was not available in a shop nearby	So as to avoid going to the store	Other	Because the item(s) was (were) too heavy / bulky	So as not to depend on the store's opening hours
Less than $20,000	35.4%	28.9%	22.2%	5.8%	5.6%	2.1%
$20,000 - $50,000	34.5%	30.2%	19.9%	5.9%	5.7%	3.8%
$50,000 - $100,000	34.2%	30.2%	18.8%	2.9%	5.3%	8.6%
Over $100,000	30.5%	28.8%	23.4%	9.1%	4.7%	3.5%

p = 0.23 ; Khi2 = 18.71 ; ddl = 15 (NS)



n= 860 New Yorker's e-consumers

2. Beyond the purchase, a matter of logistics

Once the order has been placed, comes the question of the reception of the online purchased item. From a transportation perspective, e-commerce sets itself apart from traditional, physical trade by requiring a delivery (sometimes within two hours) of a good that was purchased remotely. E-commerce represents an already large share of the total number of deliveries in the city: between 20 and 40% (36% in New York, 27% in Ile-de-France according to the IAU).[1] The development of pickup points fundamentally transforms this relation, since the customer ends up going, using their own means, to the pickup point, locker, or service point (e.g. UPS, La Poste).

1. Logistics for the last mile: the home and pickup points are at the heart of delivery practices

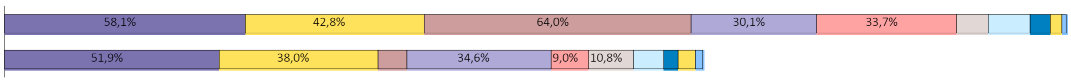
The home as the prime place for deliveries

Respondents were asked to list the delivery method(s) that they used during the year of 2017. The most widely chosen method was at-home delivery (encompassing the direct handing down of the good to the client, but also mailbox drop-off and parcel reception by a concierge. In both cities, more than one person out of two opted for at-home delivery over the course of the year (58% in Paris and 52% in NYC).

Tableau 12 Delivery methods used during 2017 in Paris and New York (several possible answers)

	At home (personally handed to you)	In your mailbox	From the concierge or doorman	From your neighbor	From a pick-up point	At a post office/ parcel company's location	At your workplace	At one of the brand's stores or warehouses	In a locker or automatic deposit box	In another place
Paris	58,1%	42,8%	64,0%	30,1%	33,7%	7,5%	10,0%	4,9%	2,7%	1,0%
NYC	51,9%	38,0%	6,9%	34,6%	9,0%	10,8%	7,1%	3,6%	3,9%	1,8%

p = <0,01 ; Khi2 = 437,96 ; ddl = 9 (TS)



n= 2,178 Parisian and New Yorker's e-consumers

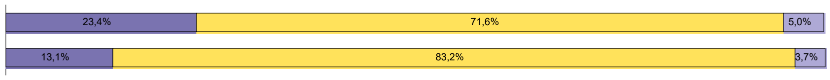
The surveyed individuals' tendencies to work from home could partly explain this pervasive commitment to at-home deliveries. Teleworking practices are particularly widespread in NYC, where nearly a quarter (23%) of the working population works from home (against 13% in Paris). This bears witness to the preponderance of the home as productive space for the household.

[1] IAU (2016), Comment améliorer la performance logistique du e-commerce ? Volet 2 : pratiques d'achat et livraisons sur internet des franciliens, novembre 2016

Tableau 13 Location of respondents' workplace or study place by city

	At home	Out of home, in a fixed place (office, shop, university, etc.)	You do not have a main work/study location	**Total**
NYC	**163**	**498**	**35**	**695**
Paris	**120**	**766**	**34**	**920**

p = **<0,01** ; Khi2 = **32,62** ; ddl = **2** (**TS**)



N= 1,615 working respondents or students residing in Paris and New York

Significant differences between the cities emerge, regarding the collection of remotely ordered goods from pickup points or from postal services. The latter practices strike as being specifically Parisian: the postal office option was chosen three times more often by Parisians (34%) than by New Yorkers (9%). Parisians (64%) were 9 times more likely than New Yorkers to have picked up a package from a pickup point over the past year than New Yorkers (7%).

Where does the Parisian specificity regarding pickup points stem from? Well anchored in French urban landscapes, pickup points benefit from a dense and far-reaching geographic coverage. In 2015, the number of pickup points in Paris was estimated at 500 by the APUR.[1] Those pickup points are most often located in stores with extended opening hours. Adding to this the number of postal offices and automatic lockers, the estimated total of out-of-home pickup points reached 650 in Paris. This number has likely increased since 2015. The proximity to a pickup point seems to be the pivotal factor leading up to the choice to collect a package in that manner. This delivery method benefits from several comparative advantages, since it is both economical (the prices of delivery for the client are often included) and flexible (one may collect their parcel where and almost whenever desired).

To our knowledge, no system, comparable to pickup points in number and reach, may be found in Manhattan. Instead, one can find Amazon Locker in several locations or UPS stores scattered throughout Manhattan. The scarcity of out-of-home collection points could hence very well explain why this parcel reception method is sought-after outstandingly more by Parisians than by New Yorkers. But the relatively low popularity of pickup points in NYC may also proceed from differences in the pricing of different delivery options. The cost of delivery differs from website to website. In France, these variations are likely to sway consumer choices and influence them to opt for the pickup point method over at-home delivery, since the former is often displayed as free-of-charges.

[1] APUR, 2015, L'évolution des commerces à Paris

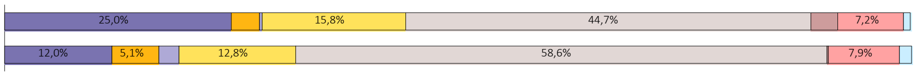
Commuting and online consumption practices

Three Parisians and four New Yorkers out of ten declared they picked up their parcel on the way to or from their work or study place. These individuals seek, first and foremost, to minimize the disruptions that online shopping could cause to their wider daily plans, by integrating their online purchase collection with their other activities and structuring trips. E-commerce therefore belongs to the array of solutions simplifying daily life (Gasnier, 2007[1])—particularly sought-after by households subject to strong time and space constraints, i.e. households with two working adults and/or young children. These respondents therefore grafted several activities onto a single trip, thus maximizing the latter's efficiency.

Tableau 14 Modes of transport during commuting depending on the city location

	Walking, without using any other mode of transport	Cycling	Using a motorized two-wheeler (motorcycle, scooter, etc.)	By car	Using public transportation	By taxi or using a ride-hailing service	Combining several of these modes	Other	Total
NYC	25,0%	3,1%	0,3%	15,8%	44,7%	3,0%	7,2%	0,9%	
Paris	12,0%	5,1%	2,3%	12,8%	58,6%	0,2%	7,9%	1,2%	

p = <0,01 ; Khi2 = 73,70 ; ddl = 7 (TS)



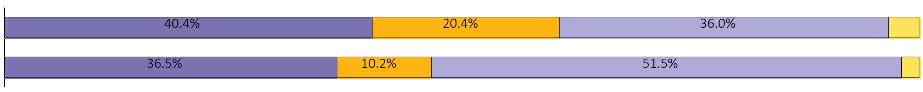
N= 1 615 working respondents or students residing in Paris and New York

Besides, more than half of Parisians and more than a third of New Yorkers who chose an out-of-home delivery service also stated that they took a trip, *specifically* to pick up their parcel.

Tableau 15 Trips due to the collection of a parcel depending on the city.

	I stopped on my journey from home to work (or work to home)		I stopped on another journey I had already planned		I specifically went to the collection point		I don't remember	
	N	% cit.	N	% cit.	N	% cit.	N	% cit.
NYC	36	40.4%	18	20.4%	32	36.0%	3	3.2%
Paris	173	36.5%	49	10.2%	244	51.5%	8	1.8%

p = 0.01 ; Khi2 = 11.26 ; ddl = 3 (S)



N= 563 respondents living in Paris and NYC

[1] Gasnier A., 2007. Les temps de mobilité des consommateurs au cœur des nouvelles logiques d'implantation de l'offre commerciale. Espace populations sociétés. Space populations societies 2-3, 243-254.

Selected delivery methods according to consumer profile

The questionnaire then inquired about the characteristics of the last online purchase that the e-consumers made in 2017. Both Parisians and New Yorkers overwhelmingly favored at-home delivery for their last order. About a third of both samples (29% of New Yorkers and 27% of Parisians) received their latest parcel directly at their home.

Consistently with overall practices in 2017, the pickup point is indeed a French exception: a fifth of the sample (20%) collected their package by themselves out-of-home, a practice in which fewer than 1% of NYC respondents engaged in. The latter, however, retrieved their package from the hands of their doorman at twice a rate of Parisians (28% against 12%, respectively). This divergence resonates with the singular organization of dwelling units in NYC, relying on a particularly widespread concierge services.

Questions revolving around the consumer's last online purchase also provide precious insights regarding the relatively new phenomenon of combining several delivery options. The complexifying nature of practices likely stems from the swell online purchasing on marketplaces (Amazon, eBay, etc.). The latter function like third party platforms or distribution centers that matches several partner vendors with potential buyers. Taking a concrete example, on Amazon, a customer may find both products that are stored and sent out by Amazon, and products which the giant selected from a pool of partner sellers. The latter manage their own storage, customer interaction and the shipping of goods.

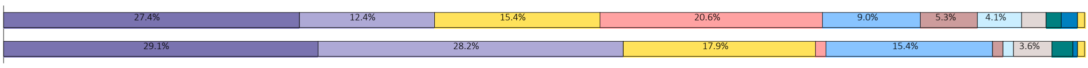
An order's delivery may therefore be fragmented. 15% of NYC respondents and 9% of Parisians accessed their goods using more than one delivery method. Most commonly cited combinations included "hand-to-hand delivery/in the mailbox", followed by "hand-to-hand delivery/via the doorman" for New Yorkers and "hand-to-hand/at a pickup point" for Parisians.

Very few respondents also resort to informal delivery methods: 2% of Parisians and 3% of New Yorkers make causal arrangements with neighbors or send their parcel "to another place", customarily to a friend's or a family's home.

Tableau 16 Modes de livraison associée au dernier achat en ligne réalisé par les sondés à Paris et New York

	At home (personally handed to you)	From the doorman	In your mailbox	From a pick-up point	Combining several delivery options	At the Post office/ parcel company's location	At one of the brand's stores or warehouse	At your workplace	In another place	In a locker or automatic deposit box	From your neighbor
Paris	27.4%	12.4%	15.4%	20.6%	9.0%	5.3%	4.1%	2.2%	1.4%	1.5%	0.6%
NYC	29.1%	28.2%	17.9%	0.9%	15.4%	1.0%	0.9%	3.6%	1.9%	0.5%	0.6%

p = 0.00 ; Khi2 = 297.65 ; ddl = 10 (TS)



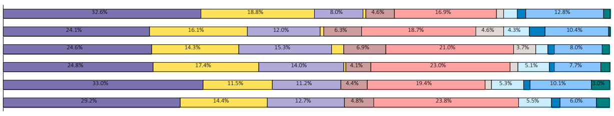
N= 2086 Parisian and New Yorker's e-consumers

In Paris, a respondent's age had little effect on delivery method selection. By contrast, age was found to significantly sway that choice amongst New Yorkers. Older individuals (65+y.o.) turn to their doorman more often than other age groups: 42% of them did so for last purchase, against only 19% of people aged 18–24. The latter set themselves apart by their singularly frequent use of their mailbox as a collecting point: 29%of them opt for that method, against only 8% of individuals aged 55–64.

Tableau 17 Delivery methods according to the age of Parisian e-consumers on the last purchase made

	At home (personally handed to you)	In your mailbox	From the doorman	From your neighbor	At the Post office/ parcel company's location	From a pick-up point	At your workplace	At one of the brand's stores or warehouse	In a locker or automatic deposit box	Combining several delivery options	In another place
18 to 24 y.o.	32.6%	18.8%	8.0%	0.5%	4.6%	16.9%	1.1%	2.3%	1.4%	12.8%	1.0%
25 to 34 y.o.	24.1%	16.1%	12.0%	0.6%	6.3%	18.7%	4.6%	4.3%	2.6%	10.4%	0.2%
35 to 45 y.o.	24.6%	14.3%	15.3%	2.1%	6.9%	21.0%	3.7%	2.0%	1.0%	8.0%	1.2%
45 to 54 y.o	24.8%	17.4%	14.0%	0.3%	4.1%	23.0%	1.3%	5.1%	0.8%	7.7%	1.4%
55 to 64 y.o.	33.0%	11.5%	11.2%	0.0%	4.4%	19.4%	1.0%	5.3%	1.0%	10.1%	3.0%
65 y.o. and more	29.2%	14.4%	12.7%	0.0%	4.8%	23.8%	0.0%	5.5%	1.4%	6.0%	2.2%

p = 0.04 ; Khi2 = 68.96 ; ddl = 50 (S)

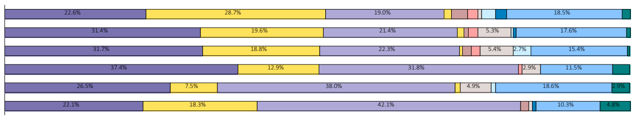


N= 1 226 Parisian's e-consumers

Tableau 18 Delivery methods according to the age of New York e-consumers on the last purchase made

	At home (personally handed to you)	In your mailbox	From the doorman	From your neighbor	At the Post office/ parcel company's location	From a pick-up point	At your workplace	At one of the brand's stores or warehouse	In a locker or automatic deposit box	Combining several delivery options	In another place
18 to 24 y.o.	22.6%	28.7%	19.0%	1.2%	2.5%	1.6%	0.7%	2.2%	1.8%	18.5%	1.3%
25 to 34 y.o.	31.4%	19.6%	21.4%	1.0%	0.7%	1.5%	5.3%	0.4%	0.6%	17.6%	0.5%
35 to 45 y.o.	31.7%	18.8%	22.3%	0.4%	1.4%	1.4%	5.4%	2.7%	0.0%	15.4%	0.5%
45 to 54 y.o	37.4%	12.9%	31.8%	0.0%	0.0%	0.6%	2.9%	0.0%	0.0%	11.5%	2.8%
55 to 64 y.o.	26.5%	7.5%	38.0%	0.8%	0.0%	0.0%	4.9%	0.7%	0.0%	18.6%	2.9%
65 y.o. and more	22.1%	18.3%	42.1%	0.0%	1.3%	0.0%	0.6%	0.0%	0.5%	10.3%	4.8%

p = <0.01 ; Khi2 = 102.14 ; ddl = 50 (TS)



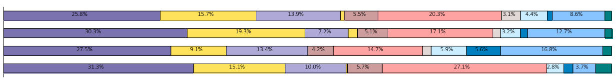
N= 860 New-Yorker's e-consumers

The choice of one delivery method over another depends on one's occupation. As might be expected, respondents who currently had a job tended to send out their order to their home or to their workplace (5% of working New Yorkers and 3% of working Parisians). Retired individuals' practices differ depending on their place of residence: more than a quarter (27%) of Parisians went to a pickup point to retrieve their parcel. This practice is completely absent from New-Yorker retirees' habits. They rather choose to receive their package directly at their home or from the hands of their doorman.

Tableau 19 Les modes de livraison de la dernière commande selon l'occupation des répondants à Paris (gauche) et New York (droite)

	At home (personally handed to you)	In your mailbox	From the doorman	From your neighbor	At the Post office/ parcel company's location	From a pick-up point	At your workplace	At one of the brand's stores or warehouse	In a locker or automatic deposit box	Combining several delivery options	In another place
king (part or full-time)	25.8%	15.7%	13.9%	0.7%	5.5%	20.3%	3.1%	4.4%	0.9%	8.6%	1.1%
lent	30.3%	19.3%	7.2%	1.4%	5.1%	17.1%	1.4%	3.2%	1.1%	12.7%	1.1%
ers	27.5%	9.1%	13.4%	0.0%	4.2%	14.7%	1.3%	5.9%	5.6%	16.8%	1.4%
red	31.3%	15.1%	10.0%	0.2%	5.7%	27.1%	0.0%	2.8%	1.5%	3.7%	2.6%

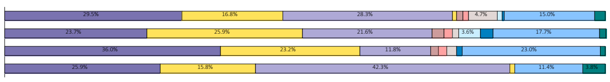
<0.01 ; Khi2 = 67.98 ; ddl = 30 (TS)



N= 1 226 Parisian's e-consumers

	At home (personally handed to you)	In your mailbox	From the doorman	From your neighbor	At the Post office/ parcel company's location	From a pick-up point	At your workplace	At one of the brand's stores or warehouse	In a locker or automatic deposit box	Combining several delivery options	In another place
Working (part or full-time)	29.5%	16.8%	28.3%	0.7%	1.0%	1.0%	4.7%	0.9%	0.3%	15.0%	1.8%
Student	23.7%	25.9%	21.6%	0.0%	2.0%	1.4%	1.0%	3.6%	2.1%	17.7%	1.0%
Others	36.0%	23.2%	11.8%	0.0%	1.2%	1.4%	1.7%	0.0%	0.9%	23.0%	0.9%
Retired	25.9%	15.8%	42.3%	0.8%	0.0%	0.0%	0.0%	0.0%	0.0%	11.4%	3.8%

p = 0.007 ; Khi2 = 52.32 ; ddl = 30 (TS)



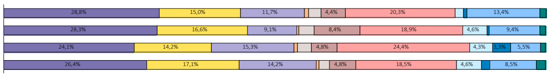
N= 860 New-Yorker's e-consumers

Our survey showed that, in Paris, the income level per CU does not govern an e-consumer's delivery preference. However, the choice of a delivery option was found to vary significantly according to income level in New York. The greater part (30%) of low-income respondents (with an income under $20,000 yearly, per CU) cited the at home and hand-to-hand as method chose during their last purchase. They were also likely to combine (14%) several delivery alternatives, most often “hand-to-hand delivery/mailbox delivery”. High-income New Yorkers (with a yearly income above $100,000 per CU) tend to have their doorman collect and store their parcel at a particularly high rate: 45% of them did so for the last item they purchased, against only 22% of low-income residents. In New York, doormen play a pivotal role in the delivery process. Often overlooked by research endeavors, doormen and concierges hence deserves to be contemplated as fully-fledge actor within the logistics chain, receiving, storing or sending the packages and sending them back according to the dwellers’ needs. To a certain extent, these functions approximate those of pickup points.

Tableau 20 *Delivery modes by respondent income level in Paris (left) and New York(right)*

	À votre domicile en main propre	Dans votre boîte aux lettres	Chez le concierge ou le gardien d'immeuble	Chez un voisin	Sur votre lieu de travail	Dans un bureau de poste	Dans un point-relais	Dans un entrepôt ou un magasin de l'enseigne	Dans un casier ou une consigne automatique	Combinaison de modes de livraison	Dans un autre lieu
Moins de 1 200€	28,8%	15,0%	11,7%	0,8%	2,3%	4,4%	20,3%	1,5%	0,7%	13,4%	1,1%
1 200€ à 2 000€	28,3%	16,6%	9,1%	0,5%	2,8%	8,4%	18,9%	4,6%	0,3%	9,4%	1,1%
2 000€ à 3 000€	24,1%	14,2%	15,3%	0,6%	2,6%	4,8%	24,4%	4,3%	3,3%	5,5%	1,0%
Plus de 3 000€	26,4%	17,1%	14,2%	0,5%	2,0%	4,8%	18,5%	4,6%	1,6%	8,5%	1,7%

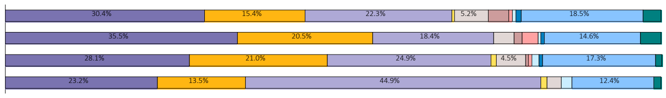
p = 0,10 ; Khi2 = 40,52 ; ddl = 30 (PS)



N= 1 226 Parisian’s e-consumers

	At home	In your mailbox	From the doorman	From your neighbor	At your workplace	At a Post Office	From a pick-up point	At one of the brand's stores or warehouse	In a looker or automatic deposit box	Combining several delivery options	In another place
Less than $20,000	30.4%	15.4%	22.3%	0.4%	5.2%	3.0%	0.6%	0.6%	0.8%	18.5%	2.8%
$20,000 - $50,000	35.5%	20.5%	18.4%	0.0%	3.1%	1.2%	2.5%	0.3%	0.6%	14.6%	3.2%
$50,000 - $100,000	28.1%	21.0%	24.9%	0.9%	4.5%	0.4%	0.5%	1.0%	0.6%	17.3%	0.8%
Over $100,000	23.2%	13.5%	44.9%	1.0%	2.2%	0.0%	0.0%	1.7%	0.0%	12.4%	1.2%

p = <0.01 ; Khi2 = 81.84 ; ddl = 30 (TS)



N= 860 New-Yorker’s e-consumers

Lastly, delivery methods depend on the type of product ordered online. While bulky items were more likely to be shipped directly to the homes and hands of more than half of the Parisian and a third of the New-York sample; pickup points, lockers and postal offices were dedicated to the reception of smaller parcels (i.e. clothing, small equipment, toys, cultural objects).

2. Instant Delivery Practices in Paris and NYC

The widespread diffusion of online consumption practices has been accompanied by the deployment of a set of instruments, designed to close in on certain standards inherent to in-store purchasing, such as the instantaneousness of item acquisition. The quest for the latter has progressively become a highly competitive battlefield. Express or even instant[1] delivery (within 2 hours following the order) allow users to reduce their waiting time after purchase.

A third of respondents had already chosen an express delivery option

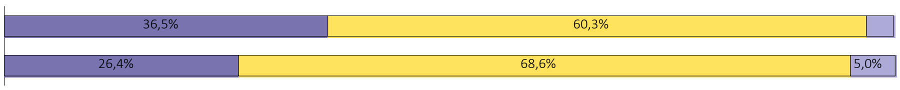
An entire section of the questionnaire centered on this new practice. 37% of New Yorkers and 26% of Parisians have already used a same-day delivery or collection option.

This difference may partly be ascribed by the greater availability of Amazon Prime Now offers and of automatic lockers in NYC than in Paris.

Tableau 21 Express delivery options depending of the city

	Less than a day	More than a day	Never	Total
NYC	323	534	28	885
Paris	337	875	64	1275

p = <0,01 ; Khi2 = 26,77 ; ddl = 2 (TS)



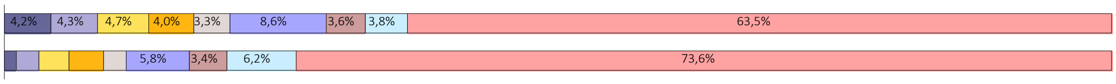
N= 2,060 respondents living in Paris and New York

Furthermore, 8.5% of New Yorkers against only 3.1% of Parisian respondents resorted to same-day delivery or pick-up in a weekly manner.[2]

Tableau 22 Frequency of same day delivery by city

	Several times a week	Once a week	2 to 3 times a month	Once a month	1 to 5 times a year	6 to 10 times a year	Less than that	I tried once	Never	Total
NYC	37	38	41	36	29	76	32	33	563	885
Paris	15	25	36	39	25	73	44	79	939	1275

p = <0,01 ; Khi2 = 59,53 ; ddl = 8 (TS)



N= 2,060 respondents living in Paris and New York

[1] Laetitia Dablanc. Le boom des livraisons instantanées. TEC Mobilité Intelligente, 2017, pp 20-21.
[2] Weekly encompassing the « several times a week » and « one a week » categories.

Parcel reception practices for express delivery options roughly reflect those of classic deliveries. Same day at-home delivery is thus more widespread than out-of-home collection: seven out of 10 New Yorkers and one Parisian out of two cited that option. Conversely, in 2017, 41% of Parisians and 39% of New Yorkers collected their parcel at a picking or storage point or in-store on the very day they ordered it.

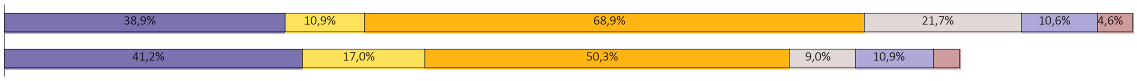
Instant deliveries (under 2 jours) practices

14% of New Yorkers and 9 % of Parisians select instant delivery as their delivery method. When they did, however, Parisians were significantly more likely to collect their parcel themselves, at a pickup point (17% of Parisians against 11% of New Yorkers).

Tableau 23 Type of instant delivery (less than 2 hour) by city

	In-store or at a warehouse (on the very same day)		In-store or at a warehouse (less than two hours)		Fast delivery (on the very same day) at home		Fast delivery (on the very same day) at a place you picked (workplace, etc.)		Fast delivery (less than two hours) at home		Fast delivery (less than two hours) at a place you picked (workplace, etc.)	
	N	% obs.	N	% obs.	N	% obs.	N	% obs.	N	% obs.	N	% obs.
NYC	127	38,9%	35	10,9%	224	68,9%	71	21,7%	34	10,6%	15	4,6%
Paris	144	41,2%	60	17,0%	176	50,3%	32	9,0%	38	10,9%	12	3,6%

p = <0,01 ; Khi2 = 26,48 ; ddl = 5 (TS)



N= 2,060 respondents living in Paris and New York

The reasons for choosing express delivery

Two groups of e-consumers, in Paris and in NYC, emerge from the analysis of motivations for choosing rapid delivery.

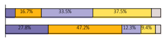
NYC e-consumers tend to be ready to pay more in order to get their package quickly and so as to avoid going to the store (36% of the sample against 23% of the Parisian sample). Parisian e-consumers are typically willing to take a trip to the pickup point or an automatic locker in order to claim their parcel rapidly (28% of Parisians against only 16% of New Yorkers).

Respondents living in Paris were more concerned about saving money than time. 28% of Parisians were absolutely disposed to pick up their parcel themselves if that option was less expensive than at-home delivery (against only 16% of New Yorkers).

Tableau 24 Hiérarchisation des déterminants au recours à la livraison instantanée à Paris (gauche) et New York (droite)

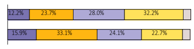
	Strongly agree	Some what agree	Some what disagree	Strongly disagree	I don't know
"I am willing to pay more for home delivery to get my product on the very day I ordered it"	6.5%	16.7%	33.5%	37.5%	5.9%
"I am willing to collect my parcel myself at a collection point near home if it allows me to get my product on the very day I ordered it"	27.8%	47.2%	12.3%	9.4%	3.3%

p = 0.00 ; Khi2 = 645.09 ; ddl = 4 (TS)



	Strongly agree	Some what agree	Some what disagree	Strongly disagree	I don't know
"I am willing to pay more for home delivery to get my product on the very day I ordered it"	12.2%	23.7%	28.0%	32.2%	3.9%
"I am willing to collect my parcel myself at a collection point near home if it allows me to get my product on the very day I ordered it"	15.9%	33.1%	24.1%	22.7%	4.2%

p = <0.01 ; Khi2 = 32.68 ; ddl = 4 (TS)



N= 2,060 respondents living in Paris and New York

Our survey suggested that New Yorkers who commute to work by driving their own car are particularly sensitive to the swiftness of the delivery, and are also prepared to pay more to get their item on the very day of the order (70%), against 55% of motorized Parisians.

Summary

The survey provides new data regarding Parisians' and New Yorkers' online, non-food related consumption practices, analyzed on the basis of their purchases over the year of 2017, and focusing, more specifically, on their latest purchase:

Online consumption is an extremely common practice within the sample:

- In 2017, 97% of New Yorkers and 95% of Parisians purchased a non-food related goods online. Motivations for buying online relate to price, the diversity of choice and trip avoidance.

- New Yorkers make online purchases significantly more often than Parisians. Our survey revealed that only 13% of Paris-based couples with children engage in online consumption on a weekly basis, against 47% of New Yorkers belonging to the same household category. However, the tendencies observed in New York may very well prefigure what online consumption practices could become in across the Atlantic in upcoming years, for, in Paris, e-commerce still has plenty of room to bloom.

Once the order has been placed, comes the question of item reception:

- The home appears as a space concentrating a household's production and consumption activities. Not surprisingly then, at-home delivery was the most widely used option by both Parisians and New Yorkers in 2017.

- Several significant differences between the cities may, however, noticed, notably regarding the collection of ordered goods from pickup points. The latter practice was cited 9 times more amongst Parisians (64%) than amongst New Yorkers (7%). The proximity to a pickup point seems to be the pivotal factor leading up to the choice to collect a package in that manner.

- The survey also provides precious insights regarding the relatively new phenomenon of combining several delivery options upon ordering online. 15% of NYC respondents and 9% of Parisians accessed their goods using more than one delivery method. The complexifying nature of practices likely stems from the swell online purchasing on marketplaces, which allow consumers (without them being necessarily aware of it) to buy goods on major e-commerce websites (Amazon, FNAC, Cdiscount, etc.), but from independent sellers, a process implying several different modalities for product delivery.

The survey also focuses in greater detail on the use of instant deliveries (on the same day or within two hours following the order).:

- 37% of New Yorkers and 26% of Parisians have already used a same-day delivery or collection option and 14% of New Yorkers and 9 % of Parisians select instant delivery as their delivery method.

- Motivations for opting for instant delivery allow to distinguish two types of e-consumers, according to the city of residence. NYC e-consumers tend to be ready to pay more in order to get their package quickly and so as to avoid going to the store (36% of the sample against 23% of the Parisian sample). Parisian e-consumers are typically willing to take a trip to the pickup point or an automatic locker in order to claim their parcel rapidly (28% of Parisians against only 16% of New Yorkers).

Part 2: Online Grocery Shopping and At-Home Meal Delivery

E-commerce now concerns virtually all types of products, including the most basic, everyday goods such as food. Both in France and in the US, grocery shopping is still mainly carried out through traditional, physical trade—as corroborated by the high density of the grocery stores network in Paris and New York (with, on average, a shop less than 500m away from one's home). The market share of shopping online for groceries in Europe remains low compared to the online purchase of clothing and other personal or household equipment. This relatively modest success derives both from a lack of customer confidence (particularly regarding product quality), and from the strategies deployed by retail players (local shops, supermarkets and hypermarkets) to defend their model. Moreover, the transportation and delivery of perishable goods comes with significant logistical challenges. The particularly high cost of the last kilometer ultimately impacts the price of the product (Mareï, Aguiléra, 201,630). Even if the market share of online grocery shopping stays low, the sector is driven by the development of novel, attractive offers; ranging from the "drive" system (in France) or sales formulas for new subscriptions, to meal kits or same-day delivery by Amazon Fresh, for example.

This second part focuses more specifically on the relationship between online grocery shopping practices and their associated delivery methods. This section also aims at examining how individuals who grocery shop online situate the practice in relation to physical, traditional trade. Issues related to the generalization and boom of food delivery in Paris and in NYC will be tackled from the perspective of the practices and motivations of the surveyed individuals.

3. Grocery Shopping Practices in the Era of E-commerce in Paris and in NYC

1. Online grocery shopping: use and perception

More than half of Parisians and three quarters of New Yorkers have already shopped for groceries online

According to our survey, more than half of Parisians (51%) and about three quarters (73%) of New Yorkers have already shopped for groceries online. New Yorkers shop online for groceries at a significantly higher rate than do Parisians. Indeed, 56% of them indicated they made a purchase online at least once a month, that is, 27 points more than Parisian respondent.

Nevertheless, both Parisians and New Yorkers maintained their in-store grocery shopping habits much more frequent than online: amongst the respondents, nearly one in two people (55% in the Parisian sample and 49% in the New York sample) reported shopping for groceries at a physical store several times a week.

Tableau 25 In-store and online shopping practices compared in Paris

	Several times a week	Once a week	2-3 times a month	Once a month	Less than that	I tried once	Never
In-store grocery sh	54,5%	33,8%	8,3%	2,0%	0,7%	0,0%	0,8%
Online grocery sh							

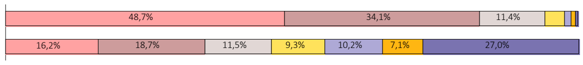
p = 0,00 ; Khi2

N= 1290 respondents living in Paris

Tableau 26 In-store and online shopping practices compared in NYC

	Several times a week	Once a week	2-3 times a month	Once a month	Less than that	I tried once	Never
In-store grocery shopping	48,7%	34,1%	11,4%	3,4%	1,3%	0,7%	0,5%
Online grocery shopping	16,2%	18,7%	11,5%	9,3%	10,2%	7,1%	27,0%

p = 0,00 ; Khi2 = 542,04 ; ddl = 6 (TS)



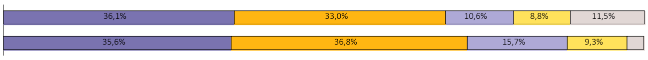
N= 888 respondents living in NYC

While respondents favored weekends for their purchases in stores, grocery shopping online allow them to extend their weekly purchasing practices, especially after 5 p.m. The greater part of Parisian e-consumers conformed to this practice (46% compared to 40% of New Yorkers). On the other hand, New York e-consumers preferred to shop online before 5 p.m. on weekdays (33% versus 26% of Parisians) and on Sundays (6% versus 3%) more often than their Parisian counterparts, but in smaller portions than for in-store shopping.

Tableau 27 Temporality of groceries shopping in stores by city area

	On weekdays before 5pm	On weekdays after 5pm	On Saturday morning	On Saturday afternoon (or evening)	On Sunday
NYC	316	289	93	77	101
Paris	450	465	198	118	33

p = <0,01 ; Khi2 = 77,53 ; ddl = 4 (TS)

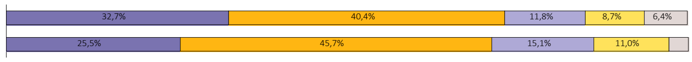


N = 2 141 respondents living in Paris and NYC

Tableau 28 Temporality of online groceries shopping by city area

	On weekdays before 5pm	On weekdays after 5pm	On Saturday morning	On Saturday afternoon (or evening)	On Sunday
NYC	177	219	64	47	34
Paris	151	270	89	65	16

p = <0,01 ; Khi2 = 19,02 ; ddl = 4 (TS)



N= 795 respondents living in à Paris et New York

Online grocery shopping: a typical practice of young couples with children

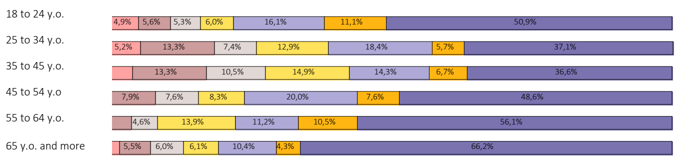
The 25–34 age group is over-represented amongst recurrent online grocery shoppers in both Paris and New York. 19% of Parisians and 45% of New Yorkers surveyed in this age group reported that they do their grocery shopping online every week.

Tableau 29 Fréquence d'achat des courses alimentaires en ligne selon l'âge des répondants parisiens

Dans votre ménage, les courses domestiques sont réalisées en ligne

	Several times a week	Once a week	2-3 times a month	Once a month	Less than that	I tried once	Never
18 to 24 y.o.	4,9%	5,6%	5,3%	6,0%	16,1%	11,1%	50,9%
25 to 34 y.o.	5,2%	13,3%	7,4%	12,9%	18,4%	5,7%	37,1%
35 to 45 y.o.	3,8%	13,3%	10,5%	14,9%	14,3%	6,7%	36,6%
45 to 54 y.o	0,0%	7,9%	7,6%	8,3%	20,0%	7,6%	48,6%
55 to 64 y.o.	0,0%	3,7%	4,6%	13,9%	11,2%	10,5%	56,1%
65 y.o. and more	1,5%	5,5%	6,0%	6,1%	10,4%	4,3%	66,2%

p = <0,01 ; Khi2 = 119,39 ; ddl = 30 (TS)



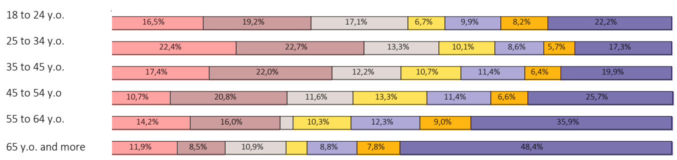
N= 1290 respondents living in Paris

Tableau 30 Fréquence d'achat des courses alimentaires en ligne selon l'âge des répondants new-yorkais

Dans votre ménage, les courses domestiques sont réalisées en ligne

	Several times a week	Once a week	2-3 times a month	Once a month	Less than that	I tried once	Never
18 to 24 y.o.	16,5%	19,2%	17,1%	6,7%	9,9%	8,2%	22,2%
25 to 34 y.o.	22,4%	22,7%	13,3%	10,1%	8,6%	5,7%	17,3%
35 to 45 y.o.	17,4%	22,0%	12,2%	10,7%	11,4%	6,4%	19,9%
45 to 54 y.o	10,7%	20,8%	11,6%	13,3%	11,4%	6,6%	25,7%
55 to 64 y.o.	14,2%	16,0%	2,3%	10,3%	12,3%	9,0%	35,9%
65 y.o. and more	11,9%	8,5%	10,9%	3,7%	8,8%	7,8%	48,4%

p = <0,01 ; Khi2 = 85,39 ; ddl = 30 (TS)



N= 888 respondents living in NYC

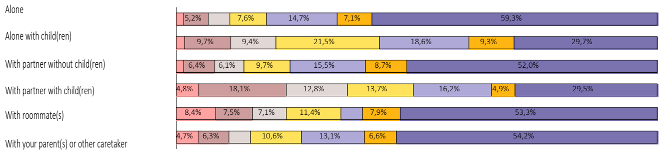
The presence of children in a household also strongly influences the frequency of buying groceries online: nearly a quarter of Parisian couples with children and two thirds of New York couples with children declared they bought their groceries online on a weekly basis. The size of the basket increases with the size of the household. By contrast, e-consumers living alone are also proportionally less likely to buy food shopping on the Internet than those either living with their partner, with or without children or people who share their accommodation in a co-living arrangement. Two thirds of respondents living alone in Paris and one third in New York indicated that they had never shopped for groceries online. This is twice as much in Paris and ten times more in New York respectively than for respondents who live with their partner and children.

Tableau 31 Fréquence d'achat des courses alimentaires en ligne selon le type de ménage du répondant parisien

Dans votre ménage, les courses domestiques sont réalisées en ligne

	Several times a week	Once a week	2-3 times a month	Once a month	Less than that	I tried once	Never
Alone	1,6%	5,2%	4,4%	7,6%	14,7%	7,1%	59,3%
Alone with child(ren)	1,8%	9,7%	9,4%	21,5%	18,6%	9,3%	29,7%
With partner without child(ren)	1,6%	6,4%	6,1%	9,7%	15,5%	8,7%	52,0%
With partner with child(ren)	4,8%	18,1%	12,8%	13,7%	16,2%	4,9%	29,5%
With roommate(s)	8,4%	7,5%	7,1%	11,4%	4,4%	7,9%	53,3%
With your parent(s) or other caretaker	4,7%	6,3%	4,4%	10,6%	13,1%	6,6%	54,2%

p = <0,01 ; Khi2 = 132,34 ; ddl = 30 (TS)



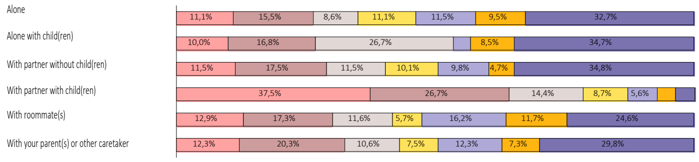
N= 1290 respondents living in Paris

Tableau 32 Fréquence d'achat des courses alimentaires en ligne selon le type de ménage du répondant new-yorkais

Dans votre ménage, les courses domestiques sont réalisées en ligne

	Several times a week	Once a week	2-3 times a month	Once a month	Less than that	I tried once	Never
Alone	11,1%	15,5%	8,6%	11,1%	11,5%	9,5%	32,7%
Alone with child(ren)	10,0%	16,8%	26,7%	0,0%	3,2%	8,5%	34,7%
With partner without child(ren)	11,5%	17,5%	11,5%	10,1%	9,8%	4,7%	34,8%
With partner with child(ren)	37,5%	26,7%	14,4%	8,7%	5,6%	3,5%	3,7%
With roommate(s)	12,9%	17,3%	11,6%	5,7%	16,2%	11,7%	24,6%
With your parent(s) or other caretaker	12,3%	20,3%	10,6%	7,5%	12,3%	7,3%	29,8%

p = <0,01 ; Khi2 = 139,64 ; ddl = 30 (TS)



N=

N=888 respondents living in NYC

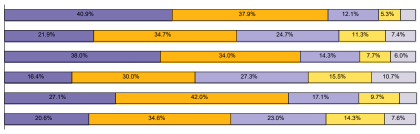
The determinants of online grocery shopping

The desire to save time is the main reason for buying groceries online in Paris and New York: nearly 41% of e-consumers in both samples "strongly agreed" with this statement. This motivation is more pronounced amongst working households with children. For these respondents, food-related e-commerce seems to be integrated into the continuity of an established strategy to minimize time waste and to avoid a multiplication of trips. Beyond the time criterion, 38% of Parisians expressed their reluctance to carry their groceries themselves as a reason to buy groceries online, compared to 32% of New Yorkers. By contrast, 10% of New Yorkers strongly disagreed with such a statement, compared to 6% of Parisians. Finally, e-consumers also had a strong interest in finding the best-value product for their money, by "taking advantage of special offers". New Yorkers were found to be more responsive to that argument: a third of them fully agree with it, compared to 22% of Parisians.

Tableau 33 Determinants of online grocery shopping in Paris

	Strongly agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Strongly disagree
Save time	40.9%	37.9%	12.1%	5.3%	3.8%
Take advantage of sales	21.9%	34.7%	24.7%	11.3%	7.4%
Avoid carrying them	38.0%	34.0%	14.3%	7.7%	6.0%
Avoid forgetting articles	16.4%	30.0%	27.3%	15.5%	10.7%
Not to depend on the opening hours of stores	27.1%	42.0%	17.1%	9.7%	4.1%
Better control my budget	20.6%	34.6%	23.0%	14.3%	7.6%

p = **0.00** ; Khi2 = **276.85** ; ddl = **20** (**TS**)

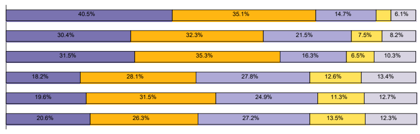


N= 1290 respondents living in Paris

Tableau 34 Determinants of online grocery shopping in New York

	Strongly agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Strongly disagree
Save time	40.5%	35.1%	14.7%	3.6%	6.1%
Take advantage of sales	30.4%	32.3%	21.5%	7.5%	8.2%
Avoid carrying them	31.5%	35.3%	16.3%	6.5%	10.3%
Avoid forgetting articles	18.2%	28.1%	27.8%	12.6%	13.4%
Not to depend on the opening hours of stores	19.6%	31.5%	24.9%	11.3%	12.7%
Better control my budget	20.6%	26.3%	27.2%	13.5%	12.3%

p = **0.00** ; Khi2 = **231.15** ; ddl = **20** (**TS**)



N=888 respondents living in NYC

4. Choosing between online v. in-store grocery shopping

Online grocery shopping is not replacing in-store grocery shopping

Beyond the description of online food purchasing practices, the survey aimed at grasping how mobility issues guide consumers' preferences regarding the use of either physical or virtual shops.

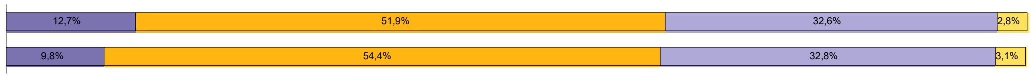
A majority of both New Yorkers and Parisians maintained their in-store grocery shopping habits much more frequent than their online ones. Even when they do shop online, one in two Parisians and New Yorkers alike, shop at the store as often as they did before.

The purchasing of groceries online does not imply the all-together disappearance of in-store purchasing practices. Only 3% of Paris and NYC residents no longer take trips to the grocery store since they have started shopping for groceries online. Hence, in the majority of cases, online shopping complements in-store shopping.

Rather, grocery shopping practices would be increasingly fragmented, with consumers seeking to multiply their circuits,[1] "zapping" between different brands according to the type of good they are looking for, to meet their need for diversity, their price, and delivery possibilities. The emergence of a "connected, skilled, and strategic" consumer is primarily due to the Internet.[2]

Tableau 35 Evolution of the practice of in-store grocery shopping since the practice of online grocery shopping by city.

	More often than before	As often as before	Less often than before	Not longer at all
NYC	**12,7%**	**51,9%**	**32,6%**	**2,8%**
Paris	**9,8%**	**54,4%**	**32,8%**	**3,1%**



N= 2 178 respondents living in Paris and NYC

Actually, we found that the more intensive the practice of online grocery shopping, the more intensive the in-store purchasing practice also is. Respondents who bought groceries online once or several times a week also reported going to the store every week to acquire the greater part of their groceries (more than 90% in both samples), probably for smaller purchases. By contrast, Parisians who never shopped for groceries online, also made more occasional purchases ("2 to 3 times a month") at the store: 7% compared to 15% of New Yorkers who regularly buy online. The latter seem to fall in the category of a

[1] Desjeux D, Moati P.(dir.). (2016), *Consommations émergentes. La fin d'une société de consommation ?* Lormont, le bord de l'eau, coll. « Mondes Marchands »

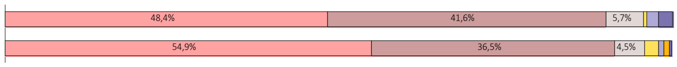
[2] Desjeux D., Garabuau-moussaoui I., Clochard F. (2001), *« Les logiques sociales du e-commerce domestique, en fonction des échelles d'observation », communication à la conférence internationale sur la consommation, Paris.*

weekly “chore” type of grocery shopping.

It would appear that online grocery shopping is causing greater fragmentation of shopping patterns, potentially implying more trips for consumers who have embraced the practice. More generally, the survey analysis unveiled the persisting interactions existing between these two canals for grocery shopping. One explanation for this phenomenon may be related to the diversification of the options provided by e-merchants who also operate physical stores.

Tableau 36 In-store groceries shopping among respondents who used online shopping

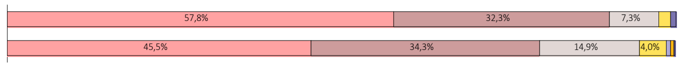
	Several times a week	Once a week	2-3 times a month	Once a month	Less than that	I tried once	Never
Paris	48,4%	41,6%	5,7%	0,4%	1,7%	0,0%	2,1%
NYC	54,9%	36,5%	4,5%	2,1%	0,8%	0,8%	0,4%



N= 458 respondents living in Paris and NYC

Tableau 37 In-store groceries shopping among respondents who have never used online shopping

	Several times a week	Once a week	2-3 times a month	Once a month	Less than that	I tried once	Never
Paris	57,8%	32,3%	7,3%	1,7%	0,1%	0,0%	0,7%
NYC	45,5%	34,3%	14,9%	4,0%	0,7%	0,4%	0,3%



N= 865 respondents living in Paris and NYC

Mobility practices related to in-store grocery shopping

The survey then analyzed respondents’ trips to the grocery store. Participants were asked which modes of transportation they generally used to go do their groceries at the store or to pick up groceries pre-ordered from a mass retailer’s site.

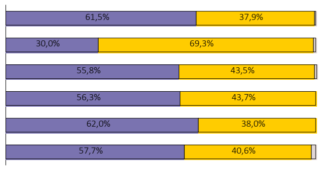
Participants were asked which modes of transportation they generally used to go do their groceries at the store or to pick up groceries pre-ordered from a mass retailer’s site.

Although the survey revealed that the automobile continues to play a major role in grocery shopping-related travel practices, it also showed that the car is not the principal means associated with that type of trips. Walking was found to be the most commonly used mode amongst respondents who bought groceries several times a week, with an over-representation of this means of transportation in the Parisian sample (62% compared to 51% for New Yorkers). In urban centres, the density of local services (products, opening hours) indeed fosters walking. Conversely, however, people who do their domestic shopping more occasionally tend to favor the use of their personal car: 69% of Parisians and 63% of New Yorkers who shopped for groceries between once a month and once a week drove their car to the store. Since the car allows for the grouping of purchases, its use likely encourages trips to the store to be more casual.

Figure 3 Frequency of shopping, depending on the mode of transport used in Paris

	Plusieurs fois par semaine	Plusieurs fois par mois	Moins souvent
Marche à pied	61,5%	37,9%	0,6%
En voiture	30,0%	69,3%	0,8%
En transports en commun	55,8%	43,5%	0,6%
A vélo	56,3%	43,7%	0,0%
En combinant plusieurs de ces modes à l'aller et au retour	62,0%	38,0%	0,0%
Modes différents	57,7%	40,6%	1,7%

p = <0,01 ; Khi2 = 74,96 ; ddl = 10 (TS)

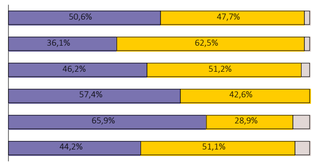


Échantillon de 1290 personnes résidant à Paris

Figure 4 Frequency of shopping, depending on the mode of transport used in NYC

	Plusieurs fois par semaine	Plusieurs fois par mois	Moins souvent
Marche à pied	50,6%	47,7%	1,7%
En voiture	36,1%	62,5%	1,4%
En transports en commun	46,2%	51,2%	2,7%
A vélo	57,4%	42,6%	0,0%
En combinant plusieurs de ces modes à l'aller et au retour	65,9%	28,9%	5,2%
Modes différents	44,2%	51,1%	4,7%

p = 0,03 ; Khi2 = 19,93 ; ddl = 10 (S)

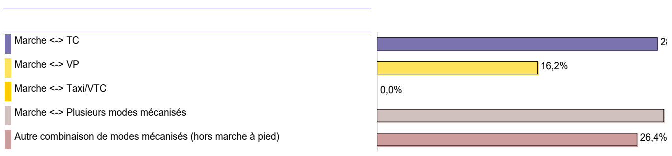


Échantillon de 888 personnes résidant à New York

A part of the respondents (6% of Parisians and 10% of New Yorkers) reported using a different mode on their way to and on the way back from the grocery store.

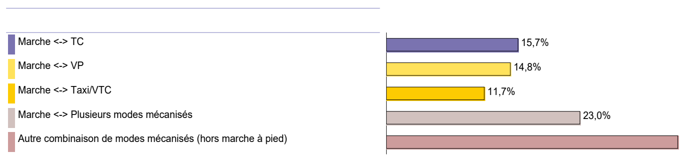
In Paris and in New York alike, walking is the backbone for these multimodal practices. In both cities, more than two thirds of the trips combining different modes of transportation on the way to and from the store include one trip on foot. Strikingly, in NYC, 12% of multimodal trips associate walking with riding a taxi/TNC service—a non-existent practice in Paris (0%).

Figure 5 Combinations of modes used when the mode used is different for the outward and return journey to Paris



Échantillon de 72 personnes résidant à Paris

Figure 6 Combinations of modes used when the mode used is different for the outward and return journey to NYC



Échantillon de 82 répondants résidant à New York

The sociodemographic drivers of grocery shopping-related trips

Within the sample, the age and occupation of respondents were both found to be correlated with their choice of transportation for grocery shopping. Among the currently employed working population, the use of private cars was significantly higher than that of other modes (24% of Parisians and 23% of New Yorkers). Conversely, retired people were under-represented among private car users (about 10% of them use this mode in both samples), and instead relied on walking and, in Paris only, on public transportation. Others (job seekers, people working at home, etc.) also tended to walk, bike (for the

Paris sample) and take the bus (for the New York sample). These modal choices may be due to a number of factors, including the particular geographical scope of the study (urban city centre), life rhythms of the respondents (especially for the working population), as well as individual mobility ability and constrains, especially in the case of retirees.

Tableau 38 Distribution of modes of transport to go to the store by respondents' occupation

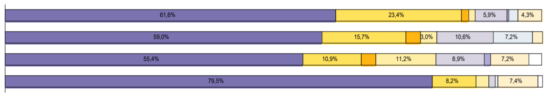
	A pied sans emprunter d'autres modes de transports	En voiture	A vélo	En bus ou tramway	En métro ou RER/Transilien	En deux-roues motorisé (Moto, scooter, etc.)	En taxi ou VTC	En combinant plusieurs de ces modes	Autre
Actifs en situation d'emploi	64,4%	23,9%	1,7%	2,3%	4,3%	0,3%	0,7%	2,5%	0,0%
Etudiants	69,4%	12,6%	2,1%	3,8%	6,1%	0,6%	1,6%	3,1%	0,6%
Inactifs et autres	72,1%	12,8%	5,3%	5,4%	2,5%	0,0%	0,0%	1,1%	0,7%
Retraités	71,3%	10,8%	0,7%	9,1%	3,6%	0,2%	0,0%	3,7%	0,7%

p = **<0,01** ; Khi2 = **72,63** ; ddl = **24** (**TS**)

Échantillon de 1290 personnes résidant à Paris

	A pied sans emprunter d'autres modes de transports	En voiture	A vélo	En bus ou tramway	En métro ou RER/Transilien	En deux-roues motorisé (Moto, scooter, etc.)	En taxi ou VTC	En combinant plusieurs de ces modes	Autre
Actifs en situation d'emploi	61,6%	23,4%	1,4%	1,2%	5,9%	0,3%	1,8%	4,3%	0,1%
Etudiants	59,0%	15,7%	2,6%	3,0%	10,6%	0,0%	7,2%	1,9%	0,0%
Inactifs et autres	55,4%	10,9%	2,8%	11,2%	8,9%	1,2%	0,0%	7,2%	2,5%
Retraités	79,5%	8,2%	0,0%	2,2%	1,2%	0,0%	0,6%	7,4%	0,8%

p = **<0,01** ; Khi2 = **89,67** ; ddl = **24** (**TS**)



Échantillon de 888 répondants résidant New York

The level of income per consumption unit also affects the mode of transportation used for grocery shopping-related trips.

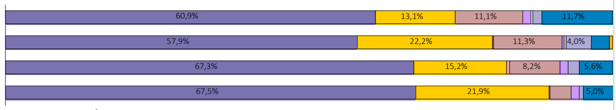
High income individuals seem to favor walking to go to and come back from the physical store: more than two thirds of them in New York (earning more than $100,000 per year per CU) and Parisians (earning more than €3,000 per month per CU) declared doing so.

Interestingly, unlike NYC residents, high income Parisians drove their car to go to and come back from a store (22% compared to 13%) significantly more often than low-income individuals (with less than €1,200 monthly per CU). This result mainly derives from the fact that non-motorized Parisians reported lower incomes than motorized Parisians. Another explanation may lie on the methodological decision to express income per consumption unit, thus taking into account household size, which may influence the respondents’ living standards.

Tableau 39 Distribution of modes of transport to go to the store by respondents' net income In Paris

	Marche à pied	En voiture	En deux-roues motorisé (moto, scooters, etc.)	En transports en commun	A vélo	En taxi ou VTC	En combinant plusieurs de ces modes à l'aller et au retour	Modes différents	Autre
Moins de 1 200€	60,9%	13,1%	0,0%	11,1%	1,3%	0,4%	1,5%	11,7%	0,0%
1 200€ à 2 000€	57,9%	22,2%	0,1%	11,3%	0,4%	0,4%	4,0%	3,1%	0,5%
2 000€ à 3 000€	67,3%	15,2%	0,6%	8,2%	1,4%	0,0%	1,7%	5,6%	0,0%
Plus de 3 000€	67,5%	21,9%	0,2%	3,5%	1,3%	0,0%	0,6%	5,0%	0,0%

p = <0,01 ; Khi2 = 62,69 ; ddl = 24 (TS)

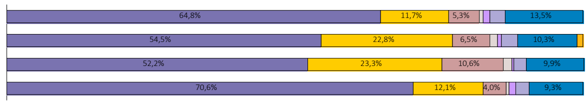


Échantillon de 1290 personnes résidant à Paris

Tableau 40 Distribution of modes of transport to go to the store by respondents' occupation in NYC

	Marche à pied	En voiture	En deux-roues motorisé (moto, scooters, etc.)	En transports en commun	En taxi ou VTC	A vélo	En combinant plusieurs de ces modes à l'aller et au retour	Modes différents	Autre
Less than $20,000	64,8%	11,7%	0,0%	5,3%	0,8%	1,1%	2,7%	13,5%	0,0%
$20,000 - $50,000	54,5%	22,8%	0,0%	6,5%	1,2%	0,7%	2,9%	10,3%	1,1%
$50,000 - $100,000	52,2%	23,3%	0,0%	10,6%	1,6%	0,3%	2,1%	9,9%	0,0%
Over $100,000	70,6%	12,1%	0,0%	4,0%	0,4%	1,2%	2,3%	9,3%	0,0%

p = 0,003 ; Khi2 = 43,55 ; ddl = 21 (TS)



Échantillon de 888 répondants résidant à New York

5. The Wide and Diverse Range of Grocery Delivery Practices in Paris and in NYC

New Yorkers opt for home delivery more frequently than Parisians

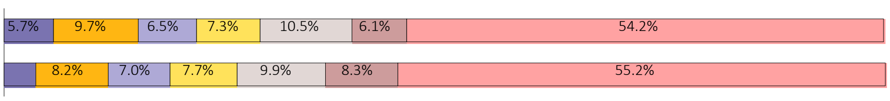
We now focus on delivery methods chosen for online grocery shopping in Paris and New York.

Even though most major grocery retailers offer the option, more than half the respondents in NYC and in Paris said they never had their groceries delivered at home after buying them in-store.

Tableau 41 Frequency of home delivery after in-store shopping

	Several times a week	Once a week	Several times a month	Once a month	Less often than that	Only tried once	Never
NYC	5.7%	9.7%	6.5%	7.3%	10.5%	6.1%	54.2%
Paris	3.7%	8.2%	7.0%	7.7%	9.9%	8.3%	55.2%

p = 0.14 ; Khi2 = 9.70 ; ddl = 6 (PS)



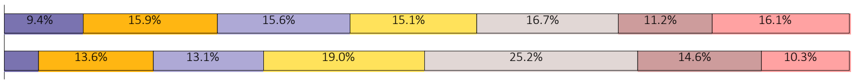
N= 2178 respondents living in Paris and NYC

Our survey showed that New Yorkers resort to at-home delivery significantly more often than Parisians. 40% of Parisian e-consumers used home delivery only very occasionally (less than once a month), compared to 30% of New York respondents. Conversely, 25% of NYC-based e-consumers chose to have their groceries delivered at home at least once a week (versus only 18% of Parisians).

Tableau 42 Frequency of home delivery after online groceries shopping

	Several times a week	Once a week	Several times a month	Once a month	Less often than that	Only tried once	Never
NYC	9.4%	15.9%	15.6%	15.1%	16.7%	11.2%	16.1%
Paris	4.1%	13.6%	13.1%	19.0%	25.2%	14.6%	10.3%

p = <0.01 ; Khi2 = 41.74 ; ddl = 6 (TS)



Échantillon de 1311 sondés ayant essayé au moins une fois l'achat en ligne de courses domestiques à Paris et New York

Respondents' main occupation significantly influences the frequency of using home delivery for receiving a food-related order placed online. In both sample, people who were currently employed in both samples were twice as likely to opt for home delivery of groceries than were retirees (66% versus 38% for the New York sample; 54% versus 30% for the Paris sample). Students and non-working individuals turned to this method of delivery more occasionally.

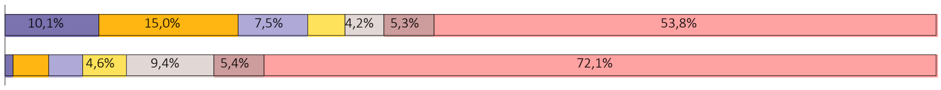
Online grocery ordering and pick up: a New York singularity

More than a quarter of NYC e-consumers (25%) ordered their groceries online before picking them up at the store (or at a warehouse) more than once a week (compared to only 5% of Parisians). Most Parisians have never tried this method (72% versus 54% of New Yorkers).

Tableau 43 La pratique du pick-up de courses domestiques achetées en ligne à Paris et New York

	Several times a week	Once a week	Several times a month	Once a month	Less often than that	Only tried once	Never
NYC	10,1%	15,0%	7,5%	4,1%	4,2%	5,3%	53,8%
Paris	0,9%	4,0%	3,6%	4,6%	9,4%	5,4%	72,1%

p = 0,00 ; Khi2 = 223,76 ; ddl = 6 (TS)



N= 2178 respondents living in Paris and NYC

SUMMARY

The progressive hybridization of e-commerce and physical trade alters the relationships between people and their grocery shopping space(s):

- More than half of Parisians and three quarters of NYC respondents have already shopped for groceries online. Still, the majority of them continue to shop for groceries in-store more frequently than online: one out of two respondents declared shopping for groceries at the store several times a week.

- Young couples with children especially tend to engage in online grocery shopping. A third of Parisians and a quarter of New Yorkers belonging to that type of household shopped online for groceries on a weekly basis.

- In order of importance, the determinants of online grocery shopping include time saving, reluctance to carry groceries and an interest in special offers. This observation forecasts the development of a model based on at-home delivery rather than a *click & collect* one. This could bear far-reaching consequences, given that the delivery of groceries is likely to have a significant impact on the flows of goods in urban centers.

The purchasing of groceries online does not imply the all-together disappearance of in-store purchasing practices, but rather a fragmentation of grocery shopping practices:

- A majority of both New Yorkers and Parisians maintained their in-store grocery shopping habits much more frequent than their online ones. Even when they do shop online, one in two Parisians and New Yorkers alike, shop at the store as often as they did before.

- The purchasing of groceries online does not imply the all-together disappearance of in-store purchasing practices. Only 3% of Paris and NYC residents no longer take trips to the grocery store since they have started shopping for groceries online. Hence, in the majority of cases, online shopping complements in-store shopping.

- Although cars continue to play a major role in transporting people to the store, the automobile is not the principal mode used for grocery shopping. Both in Paris and in NYC, most people who shop for groceries several times a week's walk to the store by foot.

- Walking constitutes the basis for multimodal mobility practices. In New York and Paris alike, more than 2/3 of shopping related trips which were made using at least two different modes to go and come back include walking. Strikingly, in NYC, 12% of multimodal trips combine walking and riding a taxi/TNC service—a non-existing practice in Paris (0%).

- **The analysis of Parisians' and New Yorkers' purchase-related trips shows that interactions between physical trade and e-commerce remain strong**: for the most part, online grocery shopping seems complementary, or even supplementary to in-store shopping. Online grocery shopping is a blooming practice that still has considerable room to grow.

2. At-home meal delivery

The at-home or at-work meal delivery has become a well established and visible practice in both New York and Paris. The sector has experienced an impressive growth: over the past year, orders increased by 27% in the United States and by 15% in France last year.[1]

This difference in growth can partly be attributed to socio-cultural factors. In the United States, this new catering method comes as a direct consequence of the strong individualization of food consumption habits—discernible both in terms of the type of goods consumed and meal temporality. In the USA, people tend to favor ready-to-eat foods.[2] The relatively low importance given to meal preparation in the United States and the desire to spend as little time as possible in the kitchen, for example, may account for Americans' high propensity to eat out.

Although less pronounced in France, where the regularity of meals and the weak penetration of snacking practices[3] contribute to the greater tendency of the French towards home cooking[4], consumption practices are becoming increasingly individualized and the time allotted to meals is being shortened[5] too.

Online platforms and services offering home meal delivery services have thus been expanding and offering an ever more varied range of products: between October 2016 and the end of March 2017, an estimated 125 million meals were delivered to customers' homes in France, which is 35% more than the year before.[6] The provision of meals at home (or at the workplace or at school) is rendered possible by the development of digital platforms. Some of them, such as Just Eat in Paris or Seamless and Caviar in NYC, provide a listing of all establishments that offer their own delivery system—thus acting as an intermediary between the restaurant (or the caterer) and the customer. Others, such as Deliveroo, Frichti in France or UberEATS, go further and put consumers, restaurants and independent delivery men and women into direct contact.

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[1] https://www.npdgroup.fr/wps/portal/npd/fr/actu/derniers-rapports/la-livraison-digitale-dans-le-monde/ (consulté le 27/05/2018)
[2] *Idem*
[3] FISCHLER C., MASSON E., 2008, Manger. Français, Européens et Américains face à l'alimentation, Paris, Odile Jacob.
[4] *Idem*
[5] INSEE, 2012, Le temps de l'alimentation en France, Insee Première N° 1417 - octobre 2012: entre 1986 et 2010, le temps moyen consacré à la préparation des repas en France s'est réduit de 25 % passant de 71 minutes à 53 minutes
[6] NPD Group (2017), Livraison de repas : le segment qui monte, qui monte

1. Preferred Meal Delivery Methods in Paris and in NYC

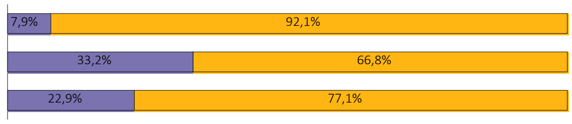
Characteristics of at-home meal delivery

More than two thirds of Parisians (67%) and 90 % of New Yorkers surveyed said they had already ordered a meal via their phone, a website or a dedicated application, and gotten it delivered to their home, workplace or study place.

Tableau 44 Pratique de la livraison à domicile de repas à Paris et New York

	Never tried at-home meal delivery	Have tried at-home meal delivery	Total
NYC	70	818	888
Paris	429	861	1290
Total	499	1679	2178

p = <0,01 ; Khi2 = 190,55 ; ddl = 1 (TS)



N= 2178 respondents living in Paris and NYC

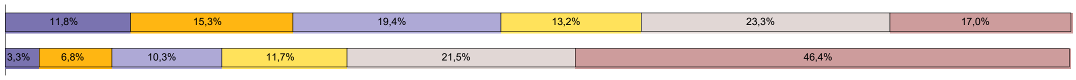
Overall, Parisians in our sample used meal delivery to a lesser extent than New Yorkers. When Parisians order a meal to their home, they must often do so by calling the restaurant or the caterer over the phone. This practice also proves to be deeply rooted and consistent among New Yorkers: 27% of the sample indicated that they ordered a meal by telephone weekly (compared to only 10% of Parisians).

Tableau 45 Fréquence de recours à la livraison à domicile de repas après une commande passée par téléphone

Vous arrive-t-il de vous faire livrer des repas à domicile ou sur votre lieu de travail ou d'études en commandant directement par téléphone

	Several times a week		Once a week		Two or three times a month		Once a month		Less often than that		Never	
	N	% obs.	N	% obs.	N	% obs.	N	% obs.	N	% obs.	N	% obs.
NYC	**104**	**11,8%**	**136**	**15,3%**	**172**	**19,4%**	**117**	**13,2%**	**206**	**23,3%**	**150**	**17,0%**
Paris	**42**	**3,3%**	**87**	**6,8%**	**133**	**10,3%**	**151**	**11,7%**	**277**	**21,5%**	**598**	**46,4%**

p = **<0,01** ; Khi2 = **258,89** ; ddl = **5** (**TS**)



N= 2178 respondents living in Paris and NYC

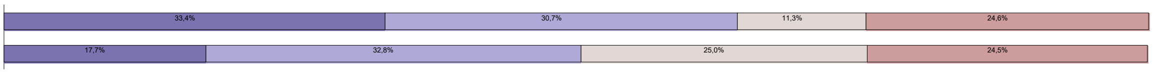
The use of food tech apps is as common amongst Parisians and New Yorkers who order meals (76% and 75%, respectively).

However, turning to an app to order a meal is way more intensive a practice in NYC: 33% of them order via an app, against only 18% of Parisians.

Tableau 46 Frequency of use of food ordering app In Paris and NYC

	Every week		Every month		Less often than that		Never	
	N	% obs.	N	% obs.	N	% obs.	N	% obs.
NYC	258	33,4%	238	30,7%	88	11,3%	190	24,6%
Paris	145	17,7%	269	32,8%	205	25,0%	201	24,5%

p = <0,01 ; Khi2 = 79,93 ; ddl = 3 (TS)



N= 2178 respondents living in Paris and NYC

Age and occupation of respondents were shown to shape the frequency of app use for at-home meals ordering. More than two thirds of retirees (80% of Parisians and 71% of New Yorkers) and half of non-working Parisians (53%) said they had never used a meal delivery app. By contrast, in NYC, employed individuals and students made the most extensive use of this method: 37% of the former group and 35% of the latter ordered a ready-to-eat meal per app on a weekly basis. Parisians belonging to the same categories, on the other hand, engaged with apps more occasionally: only 33% of students and 24% of employed people individuals said they ordered a prepared meal over an app at least once a month.

The drivers of at-home meal delivery: convenience versus abundance of choice

The main motivation articulated by Parisians for using apps to order meals was the abundance of choice (35%), while New Yorkers privileged the ease of payment (41%).

Parisians' inclination towards the abundance of choice justification may reflect their enthusiasm given that the delivery offer had, for long, been tightly limited to few dishes (e.g. pizza, sushi). The possibility to order meals on demand then widens access to a diverse range of meal options.

In New York, the sensitivity for the ease of payment resonates with the accelerating shift in the United States away from cash payments and towards credit cards or new payment solutions (Apple Pay, Android Pay, Venmo, Lydia).[1] In New York, the sensitivity to the seamlessness of payment resonates with the accelerating shift in the United States away from cash payments and towards credit cards or new payment solutions (Apple Pay, Android Pay, Venmo, Lydia). Case in point: in 2012, cash payments

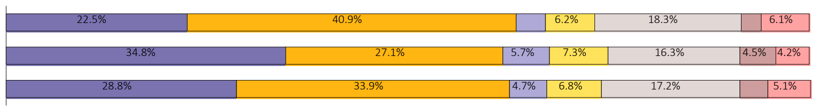
[1] http://www.bbc.com/capital/story/20160922-the-countries-where-cash-is-on-the-verge-of-extinction

(for all types of purchases) only accounted for 40% of transactions in the United States. Some restaurant chains in NYC, seeking to fight against fraud and to save money (cash management is expensive) now even prohibit the use of cash (Sweetgreen, Dos Toros, Dig Inn).[1] For users, this contributes, above all, to a smooth, user-friendly customer experience.

Figure 7 The drivers of at-home meal delivery in Paris and New York

	There are more options	Payment is easier	It is delivered by using green modes of transport	It is cheaper	I do not like to order over the phone	I do not trust the websites of the restau rants	Other	Total
NYC	22.5%	40.9%	3.6%	6.2%	18.3%	2.4%	6.1%	100.0%
Paris	34.8%	27.1%	5.7%	7.3%	16.3%	4.5%	4.2%	100.0%
Total	28.8%	33.9%	4.7%	6.8%	17.2%	3.5%	5.1%	

p = <0.01 ; Khi2 = 45.59 ; ddl = 6 (TS)



N=1273 respondents living in Paris and NYC

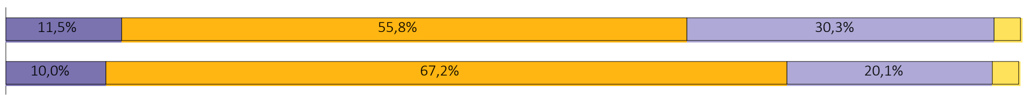
2. The impacts of ordering meals at home on eating out at restaurants

3. 23% of New Yorkers and 15% of Parisians eat out at restaurants less often than before they started using a meal-delivery apps. The digitalization of meal consumption thus may transforms in a near future the sector of ready-to-eat food preparation.

Tableau 47 Impacts of ordering meals at home on eating out at restaurants

	More often than before	As often as before	Less often than before	No longer at all
NYC	11,5%	55,8%	30,3%	2,4%
Paris	10,0%	67,2%	20,1%	2,8%

p = <0,01 ; Khi2 = 20,66 ; ddl = 3 (TS)



[1] https://www.nytimes.com/2017/12/25/nyregion/no-cash-money-cashless-credit-debit-card.html

SUMMARY

In both cities, at-home or at-work meal delivery is a blooming practice, facilitated by digital platforms:

• 67% of Parisians and 90 % of New Yorkers surveyed have already ordered a meal and gotten it delivered to their home, workplace or study place.

• In practical terms, Parisians tended to resort to meal delivery less often than New Yorkers. When they did, their go-to means of ordering still is calling the restaurant or the caterer.

• The use of food ordering apps is as common amongst Parisians and New Yorkers who order meals (76% and 75%, respectively). However, turning to an app to order a meal is way more intensive a practice in NYC: 33% of them order via an app, against only 18% of Parisians.

• The use of meal applications is found to be more intensive in NYC than it is in Paris. This tendency is accentuated as far as students and the working population are concerned, two sub-populations who, in Paris, engage in such practice in more occasional a manner than in NYC.

• Parisians cite the abundance of choice as the main reason for using food-delivery applications, whereas New Yorkers primarily value the seamlessness of payment procedures. Lastly, the survey finds that a third of New Yorkers and a fifth of Parisians declare that they eat out at restaurants less often than before they started using a meal-delivery apps.

• 23% of New Yorkers and 15% of Parisians eat out at restaurants less often than before they started using a meal-delivery apps.

The possibility for having a prepared meal delivered at home seems to be a prime instrument of time management, especially for people with constrained daily agendas.

Third part: online shopping and mobility practices

When studying the influence of e-commerce on the physical mobility of private individuals, it is necessary to keep in mind that these transformations are taking place in a context where new delivery options, which allow consumers to access to a wider array of goods while saving time, are still reserved to hypermobile and connected executives.

Online shopping is discretionary. People may cease their online purchasing practices (because of a lack of motivation, or a dissatisfying experience), but may also re-engage with them following a change in household or individual circumstances (having a child, for example). Although the transition to becoming an e-consumer is gradual, notably because it requires a fair dose of technical learning, online shopping alters an individual's long-term behavior (Leite Ferreira, 2009[1]). As soon as buying online becomes a habit, this practice integrates the range of options available, leading to a diversification of both sites visited and products consumed. Our survey validated this phenomenon, with the regular online purchase of material goods being positively correlated with the frequency of online grocery shopping. The latter is, in turn, also positively linked to the likelihood of ordering prepared meals at home via an app.

This last part examines the connections between (food and non-food related) e-commerce and the physical mobility of private individuals, in a context where consumers gain access to an ever wider and diversifying array of both goods and related delivery methods. Do different mobility constraints also imply diverging consumption practices? Conversely, to what extent may mobility practices only have a secondary importance in a consumer's choice?

First, we put forward a typology of e-consumers. The analysis of survey data enabled us to distinguish four relatively homogenous groups of consumers, based on the kind (food/non-food related) and the frequency of their online consumption practices.

Second, we examine the relationship between online consumption practices of non-food related items, grocery shopping and the use of apps for at-home meal delivery.

[1] Ferreira L M. P.,2009, "(R)evolution of the e-grocery industry: strategic implications", Universidade Catolica portuguese, Porto, Faculdade de Economia e Gestao

1. Typology of e-consumers

1. Objectives and methodology

Methodology for the typology construction

This section puts forward a typology of e-consumers based on the synthesis of their online consumption practices (food and non-food) and their mobility practices. This typology aims to shed light on the impact of online shopping on the mobility practices of Parisians and New Yorkers.

While the purchasing cultural products, clothing and household appliances on the Internet has become rather common in Paris and New York, grocery shopping online still is an emerging consumption practice, appealing to a niche public. Online grocery shopping is discretionary because of the specificity and structuring nature of grocery shopping-related trips (high regularity in terms of space and time, considerable weight in daily mobility). Its level of adoption signal the degree to which online purchasing is integrated into broader consumption habits. The typology is thus built on these contrasting grocery shopping practices and allows by crossing them with other forms of e-commerce to highlight the variations in the respondents' engagement with this practice.

We initially emitted the hypothesis that consistent online consumption practices, particularly for groceries, could turn out to be a viable alternative to the use of private cars for shopping related trips (Corpuz & Peachman, 2003[1]; Mokhtarian 2004[2]; Weltevreden & Rietbergen 2009[3]).

Frequency of purchase is expressed using two categories:

- Frequent user: in 2017, the respondent shopped online at least once a month
- Occasional user/non-user: in 2017, the respondent shopped online less than once a month or never

[1] Corpuz, G., Peachman, J. (2003) « Measuring the impacts of internet usage on travel behaviour in the sidney household travel survey ». Presented at the 26th Australian Transport Research Forum Conference, 1-3 october 2003, Wellington, New Zealand
[2] Mokhtarian P. (2004), A Conceptual Analysis Of The Transportation Impacts Of B2c E-Commerce. Transportation, 31, 257-284.
[3] Weltevreden, J.W.J. & T. Van Rietbergen (2009). *E-Shopping Versus City Centre Shopping: The Role Of Perceived City Centre Attractiveness.* Tijdschrift Voor Economische En Sociale Geografie. 98. 68-85.

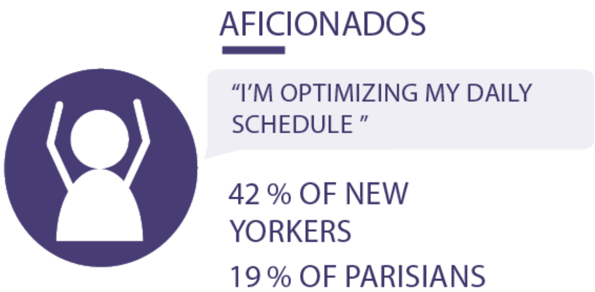
Description and mobility practices of the four types of e-consumers

Figure 8 Typology of e-consumers

		Online grocery shopping	
		Frequent users	Occasional user / non-user
Non-food related online purchase	Frequent users	**Aficionados** Paris : 19 % NYC : 42 %	**Supermarket phobics** Paris : 8 % NYC : 14 %
	Occasional user / non-user	**Old-school e-consumers** Paris : 28 % NYC : 25 %	**Sporadic e-consumers** Paris : 45 % NYC : 19 %

6t-bureau de recherche, 2018.

The analysis of survey data enabled us to distinguish several profiles, whose similarities and diverging points have yet to be described. In order to do so, we base ourselves off the kind (food/non-food related) and the frequency of online shopping, while isolating an "income effect" affecting online consumption practices:



"**Aficionados**" engage in both grocery and non-food related shopping online at a high frequency. The group is majoritarily composed of New Yorkers (42% compared to 19% of Parisians). In Paris and in NYC alike, they shop online mainly to optimize their daily agenda. Parisian aficionados were found to be particularly willing to circumvent stores' opening hours, whereas New Yorkers insist on their desire to avoid taking a trip to the store. 41% of Parisian and 53% des New York aficionados are ready to pay more in order to receive their purchase on the same day.

Individuals aged 25–34 (representing one third of them in both samples), as well as executives (48% of New Yorkers versus 27% of Parisians), and individuals living with their partner and at least a child (70% of New Yorkers versus 39% of Parisians) are overrepresented amongst aficionados. Aficionados tend to have high incomes. A third of Parisians earning more than 3000 € per CU are aficionados. Similarly, 35% of New Yorkers with an annual income per CU between 50,000 and 100,000 $ belong to this category of e-consumers.

70% of Parisian and 57% of NYC aficionados own a car in their household (as compared to 64 and 52% of the overall sample in Paris and in NYC). For the most part, they have a monthly or annual transit pass (73% of

Parisian and 61% and NYC aficionados versus 69% and 55% of the overall sample in and NYC). Aficionados also seem to have diverse mobility practices, since 66% of Parisians and 56% of New Yorkers in this category own at least one bike (versus, on average, 47% of Parisians and 43% of New Yorkers).

"Sporadic e-consumers," predominantly Paris residents, tend to shop online (both for groceries and non-food related items) occasionally. Sporadic e-consumers in Paris and in NYC shop for material goods online primarily for reasons related to money saving. Consistently with previous analyses of the motivations for shopping online amongst Parisians, they are highly sensitive to the products' prices and to special offers. Online grocery shopping is justified on the basis of criteria relating to comfort (not having to carry their bags themselves) in Paris and time saving in NYC.

Sporadic e-consumers are overrepresented amongst people who live alone (half of Parisians and a quarter of New Yorkers living alone belong to this category), mainly employees or workers as well as retirees aged 65 + (about one third of the respondents in both samples). Sporadic e-consumers tend to have medium-level incomes. They make up 32% of Parisians with monthly incomes between 1200 and €2,000 per CU and 36% of New Yorkers with annual incomes between 20,000 and $50,000 per CU.

The majority of sporadic e-consumers do not own a car in their household: 50% of Parisian and 71% of New Yorker sporadic e-consumers do not own motorized vehicles (compared to 36% of Parisians and 49% within the total samples). They also own fewer bikes than on average (59% of Parisian and 72% of New Yorker aficionados versus 53% of Parisians and 57% of New Yorkers in the total sample). Sporadic e-consumers also own significantly fewer public transit passes than others: half of New Yorkers in this category do not have a public transit pass (compared to 45% of New Yorkers on average). This is also the case for 34% of Parisian sporadic e-consumers (compared to an average of 31% of Parisians). The difference between Paris and New York on this point likely derives from the most common use of pay-as-you-go cards in New York.

OLD-SCHOOL

"I'M DIVERSIFYING MY PURCHASES (NYC) AND I DO NOT DEPEND ON STORES' OPENING HOURS (PARIS)" "

28 % OF PARISIANS

25 % OF NEW YORKERS

"**Old-school e-consumers,"** frequently purchase non-food related items online, but shop for groceries online only occasionally or never. 28% of Parisians and 25% of New Yorkers belong to this category. Particularly for New Yorkers in this category, shopping for non-food related items online appears to be a way to diversify their purchases by taking advantage of a wider offer on the Internet than in stores. Parisians are motivated above all by the possibility of not depending on store opening hours.

This group's sociodemographic uniqueness relies on an over-representation of students aged 18–24 (16% of Parisian and 17% of New Yorker "old-school e-consumers", when they represent only 11% of Parisian respondents and 8% of New Yorkers in the overall sample). Old-school e-consumers' incomes vary according to the city of residence. Consistently with their socio-demographic profile, in NYC, they are over-represented amongst low income groups (less than $20,000 per year per CU). In Paris, on the other hand, old-school e-consumers earn particularly high incomes—thus suggesting that, in Paris, this group is not solely made up by students.

64% of NYC old-school consumers do not own a car (compared to 48% of New Yorkers on average). On the other hand, 60% of Parisians in this group own at least one personal car (compared to 64% of Parisians on average). The majority of this group (70% of Parisians and 56% of New Yorkers) have a public transit pass, which is relatively similar to the average for Parisians and New Yorkers (69% of Parisians and 55% in New York).

SUPERMARKET PHOBIC

"I'M OVERRIDING THE CONSTRAINTS OF TO SHOPPING AT A SUPERMAKET"

14 % OF NEW YORKERS

8 % OF PARISIANS

"Supermarket phobics" often shop for groceries online but who rarely to never buy non-food related goods online. They represent 8% of Parisians and 14% of New Yorkers. Buying their food shopping online seems to provide them with money saving and comfort (not having to carry their groceries themselves). Parisians in this category are also more sensitive to the idea of not depending on stores' opening hours, while NYC supermarket phobics appreciate being able to take advantage of special offers.

Supermarket phobics include people with children (both single parents and couples) and who tend to own cars (67% of Parisians and 51% of New Yorkers in this category compared to 64% of Parisians and 52% of New Yorkers overall). Supermarket phobics stand out amongst Parisians and New Yorkers with medium-level incomes (2,000 to 3,000 euros per month per CU and 20,000 to $50,000 per year per CU, respectively).

A majority of supermarket phobics do have a public transport pass (66% of Parisians and 51% of New Yorkers in this category), but to a lesser extent compared to the average amongst Parisians (69%) and New Yorkers (55%) in the sample.

Are e-consumers also users of new transportation modes (car-sharing, TNCs, bike sharing, etc.)?

Affluent inner-city populations seem to use digital and new associated services (whether e-commerce or new mobility services) as a way to inject ever more flexibility into their lifestyles. They may access to those services both because of their incomes and of their residential location.

Aficionados thus were found to have a more intensive use of new mobility services (car sharing, TNCs, etc.) than other types of e-consumers.

30% of NYC aficionados (compared to 19% of the overall NYC sample) and 21% of Parisians (compared to 9% of the Paris sample) subscribe to a car-sharing system. In comparison, only 7% of sporadic e-consumers and 12% of old-school e-consumers in NYC, and 3.5% of sporadics and 8% of old-school e-consumers in Paris hold a car-sharing service subscription.

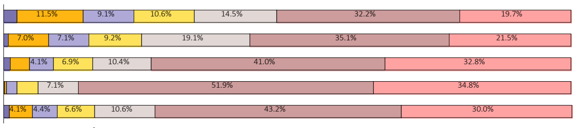
23% of Parisian and 45% of NYC aficionados hail a ride or take a taxi on a weekly basis. Even more surprisingly, 6% of NYC aficionados use a taxi or TNC services “every day or almost every day”. By contrast, old-school e-consumers and supermarket phobics have a more occasional use of these services. In Paris, 28% of supermarket phobics and 17% of old school e-consumers reported using these services at least once a month (compared to one third of supermarket phobics and almost half of old-school consumers in NYC). However, it should be noted that in NYC, 8% of supermarket phobics reported using TNCs or a taxi “almost every day”.

Sporadic e-consumers have less use of these mobility services: 35% of sporadic Parisian e-consumers and 16% of New Yorkers in the same category never use these emerging modes of transportation. Similarly, while more than a third of sporadic e-consumers in Paris and NYC indicated they did not travel by plane a single time in 2017, 6% of aficionados in Paris and 8% in New York took the plane more than 15 times this year. Supermarket phobics and old-school e-consumers also travelled more regularly by plane this year than sporadic e-consumers. Thus, the most intensive e-consumers also use new mobility services the most often, and exhibit exacerbated mobility practices, particularly in terms of distance travelled.

Tableau 48 Frequency of use of ridehailing app or taxi according to the typology of Parisian's e-consumers

	Every day or almost every day	2-3 times a week	Once a week	2-3 times a month	Once a month	Less often than that	Never
Aficionados	2.5%	11.5%	9.1%	10.6%	14.5%	32.2%	19.7%
Supermarket phobics	1.0%	7.0%	7.1%	9.2%	19.1%	35.1%	21.5%
Old-school	1.3%	3.4%	4.1%	6.9%	10.4%	41.0%	32.8%
Sporadic	0.3%	0.4%	1.7%	3.7%	7.1%	51.9%	34.8%
Total	1.1%	4.1%	4.4%	6.6%	10.6%	43.2%	30.0%

p = 0.00 ; Khi2 = 156.27 ; ddl = 18 (TS)

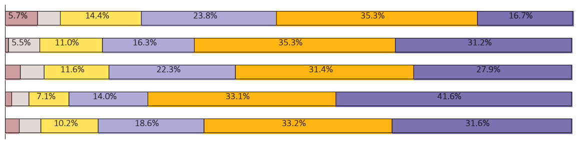


Échantillon de 1290 répondants parisiens

Tableau 49 Frequency of use of airplane this year according to the typology of Parisian's e-consumers

	More than 15 times this year	10 to 15 times this year	5 to 10 times this year	3 to 5 times this year	Once or two times this year	None this year
Aficionados	5.7%	4.1%	14.4%	23.8%	35.3%	16.7%
Supermarket phobics	0.7%	5.5%	11.0%	16.3%	35.3%	31.2%
Old-school	2.7%	4.2%	11.6%	22.3%	31.4%	27.9%
Sporadic	1.3%	2.9%	7.1%	14.0%	33.1%	41.6%
Total	2.6%	3.7%	10.2%	18.6%	33.2%	31.6%

p = <0.01 ; Khi2 = 78.49 ; ddl = 15 (TS)

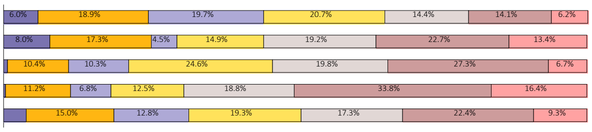


Échantillon de 1290 répondants parisiens

Tableau 50 Frequency of use of ridehailing app or taxi according to the typology of New Yorker'se-consumers

	Every day or almost every day	2-3 times a week	Once a week	2-3 times a month	Once a month	Less often than that	Never
Aficionados	6.0%	18.9%	19.7%	20.7%	14.4%	14.1%	6.2%
Supermarket phobics	8.0%	17.3%	4.5%	14.9%	19.2%	22.7%	13.4%
Old-school	0.8%	10.4%	10.3%	24.6%	19.8%	27.3%	6.7%
Sporadic	0.5%	11.2%	6.8%	12.5%	18.8%	33.8%	16.4%
Total	3.9%	15.0%	12.8%	19.3%	17.3%	22.4%	9.3%

p = <0.01 ; Khi2 = 107.92 ; ddl = 18 (TS)

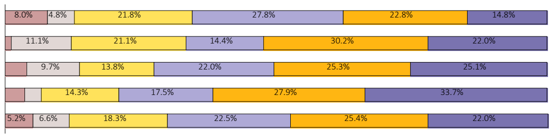


Échantillon de 888 répondants new-yorkais

Tableau 51 Frequency of use of airplane this year according to the typology of New Yorker 's e-consumers

	More than 15 times this year	10 to 15 times this year	5 to 10 times this year	3 to 5 times this year	Once or two times this year	None this year
Aficionados	8.0%	4.8%	21.8%	27.8%	22.8%	14.8%
Supermarket phobics	1.2%	11.1%	21.1%	14.4%	30.2%	22.0%
Old-school	4.0%	9.7%	13.8%	22.0%	25.3%	25.1%
Sporadic	3.6%	3.1%	14.3%	17.5%	27.9%	33.7%
Total	5.2%	6.6%	18.3%	22.5%	25.4%	22.0%

p = <0.01 ; Khi2 = 62.56 ; ddl = 15 (TS)



Échantillon de 888 répondants new-yorkais

Use of home meal delivery apps according to e-commerce typology

The contrast between the characteristics of aficionados who frequently shop for groceries online compared to sporadic e-consumers who do so only occasionally (if ever) seems to confirm our hypothesis of a learning/experience effect on online grocery shopping practices: the more respondents integrate a diversity of purchasing options into their consumption habits, the more likely they are to use new services such as delivery apps. Thus, aficionados in Paris and New York use at-home delivery apps more regularly than others. This practice is more extensive and consistent in NYC, where 53% of aficionados order a meal at least once a week via an app (compared to 33% of Parisians in this category).

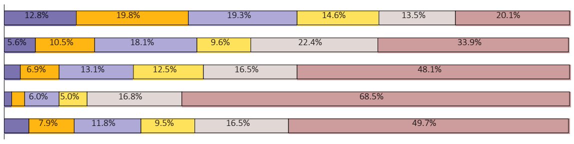
Considering that food-related e-commerce is a growing market in both Paris and New York, we may expect an increase in the use of delivery apps as users who already shop online frequently get acquainted with these new practices.

It may be noted that 18% of Parisian and 21% of NYC supermarket phobics use dedicated apps two to three times a month, which seems to confirm that online grocery shopping also allowed them to vary their meal options outside physical restaurants in Paris and in NYC.

Tableau 52 Use of food ordering app according to the typology of Parisian's e-consumers

	Several times a week	Once a week	Two or three times a month	Once a month	Less often than that	Never
Aficionados	12.8%	19.8%	19.3%	14.6%	13.5%	20.1%
Supermarket phobics	5.6%	10.5%	18.1%	9.6%	22.4%	33.9%
Old-school	2.9%	6.9%	13.1%	12.5%	16.5%	48.1%
Sporadic	1.4%	2.3%	6.0%	5.0%	16.8%	68.5%
Total	4.5%	7.9%	11.8%	9.5%	16.5%	49.7%

p = <0.01 ; Khi2 = 271.19 ; ddl = 15 (TS)

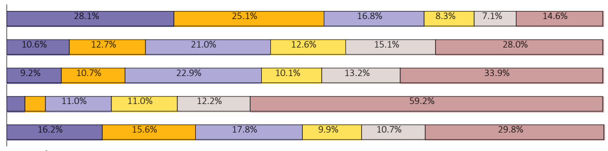


Échantillon de 1290 répondants parisiens

Tableau 53 Use of food ordering app according to the typology of New Yorker's e-consumers

	Several times a week	Once a week	Two or three times a month	Once a month	Less often than that	Never
Aficionados	28.1%	25.1%	16.8%	8.3%	7.1%	14.6%
Supermarket phobics	10.6%	12.7%	21.0%	12.6%	15.1%	28.0%
Old-school	9.2%	10.7%	22.9%	10.1%	13.2%	33.9%
Sporadic	3.2%	3.4%	11.0%	11.0%	12.2%	59.2%
Total	16.2%	15.6%	17.8%	9.9%	10.7%	29.8%

p = <0.01 ; Khi2 = 198.27 ; ddl = 15 (TS)



Échantillon de 888 répondants new-yorkais

2. Online shopping practices and car use

The e-consumption typology allowed to identify a positive correlation between car ownership and car use, on the one hand, and online consumption practices on the other.

The greater part of aficionados uses a car every week: 62% of them in Paris and 54% of them in NYC. When they own a car, which a majority of them do, 77% of Parisian and 81% of New Yorker aficionados drive it at least once a week.

Within groups that shop online less intensively, car use is found to be lower.

Despite their substantial car ownership level, Supermaket phobic e-consumers tend to use their car at a relatively low rate: less than 50 % of them in both Paris and in NYC drive their car at least once a week.

Old-school e-consumers are characterized by an occasional car use: only 37% of Parisians and 21% of New Yorkers drive their personal car weekly. This low car usage mainly proceeds from a low car ownership rate, while in Paris, where old-school consumers tend to be motorized, the quality and density of the public transportation network constitutes an incentive not to drive.

Sporadic e-consumers use their vehicle more rarely, notably because their households own fewer cars: barely 20 % of sporadic e-consumers in NYC and 36 % in Paris drive their car on a weekly basis. Even when they do own a car, as many as 8% of them and 14% of them in NYC never use their car. By comparison, only 0,5 % and 2 % of car-owning aficionados in Paris and in NYC never drive their car.

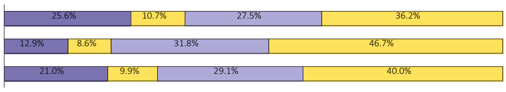
For these car-owning aficionados, the autonomile seems to be associated with time and energy saving—all the more appreciated considering professional and personal constraints.

Tableau 54 Car ownership according to the typology of Parisian's e-consumers

TYPO-NOM-Fin, MOTORIZATION_CAR
DRIVERS_LICENSE Parmi "Yes"

	Aficionados	Supermarket phobics	Old-school	Sporadic
Own at least 1 car	25.6%	10.7%	27.5%	36.2%
Do not own a car	12.9%	8.6%	31.8%	46.7%
Total	21.0%	9.9%	29.1%	40.0%

p = <0.01 ; Khi2 = 26.90 ; ddl = 3 (TS)



Échantillon de 1011 répondants parisiens ayant leur permis de conduire

Tableau 55 Frequency of private car use according to the typology of Parisian's e-consumers

FREQUENCIES_PCD, TYPO-NOM-Fin

	Every day or almost every day	2-3 times a week	Once a week	2-3 times a month	Once a month	Less often than that	Never
Aficionados	23.8%	24.4%	13.7%	7.9%	5.3%	18.2%	6.7%
Supermarket phobics	13.7%	18.0%	13.0%	10.9%	7.3%	18.1%	19.1%
Old-school	13.8%	12.5%	10.4%	12.4%	8.5%	23.4%	19.0%
Sporadic	10.4%	10.9%	14.9%	6.4%	5.7%	23.2%	28.5%
Total	14.5%	14.9%	13.1%	8.9%	6.6%	21.7%	20.2%

p = <0.01 ; Khi2 = 84.84 ; ddl = 18 (TS)

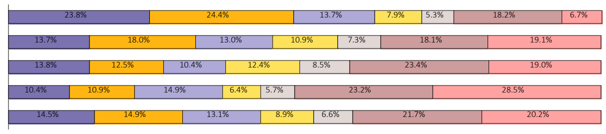
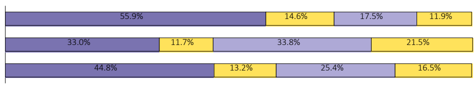


Tableau 56 Car Ownership according to the typology of New Yorker's e-consumers

TYPO-NOM-Fin, MOTORIZATION_CAR
DRIVERS_LICENSE Parmi "Yes"

	Aficionados	Supermarket phobics	Old-school	Sporadic
Own at least 1 car	55.9%	14.6%	17.5%	11.9%
Do not own a car	33.0%	11.7%	33.8%	21.5%
Total	44.8%	13.2%	25.4%	16.5%

p = <0.01 ; Khi2 = 50.83 ; ddl = 3 (TS)



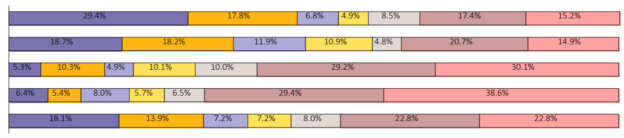
Échantillon de 715 répondants new-yorkais ayant leur permis de conduire

Tableau 57 Frequency of private car use according to the typology of New Yorker's e-consumers

FREQUENCIES_PCD, TYPO-NOM-Fin

	Every day or almost every day	2-3 times a week	Once a week	2-3 times a month	Once a month	Less often than that	Never
Aficionados	29.4%	17.8%	6.8%	4.9%	8.5%	17.4%	15.2%
Supermarket phobics	18.7%	18.2%	11.9%	10.9%	4.8%	20.7%	14.9%
Old-school	5.3%	10.3%	4.9%	10.1%	10.0%	29.2%	30.1%
Sporadic	6.4%	5.4%	8.0%	5.7%	6.5%	29.4%	38.6%
Total	18.1%	13.9%	7.2%	7.2%	8.0%	22.8%	22.8%

p = <0.01 ; Khi2 = 111.86 ; ddl = 18 (TS)



Aficionados (New Yorkers, for the most part) are particularly sensitive to the optimization of their daily agenda, enabled by delivery services, but are less sensitive to the price criterion. 41% of Parisians and 53% of New Yorkers in this category are willing thus willing to pay more for a home delivery on the same day.

Both old school and sporadic Parisian e-consumers are more sensitive to the cost of delivery than are their NYC counterparts. While 2/3 of old-school and sporadic e-consumers in Paris would be willing to take a trip to pick up their product themselves if delivery is cheaper, less than one third of New Yorkers in each of these categories share this opinion.

Aficionados also use their cars more frequently commute than other categories. This is the case for 27% of Parisians aficionados (compared to 16% of the total sample of Parisians) and New Yorkers aficionados respectively (compared to 13% of the total sample of New Yorkers). Conversely, aficionados are under-represented among public transport users: 48% of Parisian aficionados (compared to 59% of the total Parisians sample) and 38% of NYC aficionados (compared to 44% of the total New Yorkers sample) have a transit pass.

In NYC, sporadic e-consumers, mostly non-motorized, prefer alternative solutions to private cars (walking and public transport). They are overrepresented for walking trips (38% versus 25% of the total New Yorkers sample) and underrepresented as far as car use is concerned (5% versus 16% of the total New York sample).

It should be noted that supermarket phobics have a more intensive use of modes that are alternative to the car than the rest of the groups (54% versus 45% of the total sample of New Yorkers).

In Paris, while more than half of old-school e-consumers own a car, fewer of them use the car (6% compared to 13% of the total sample of Parisians) for their daily commuting trips, which may be explained by the density and efficiency of the Ile-de-France public transit network.

SUMMARY

A mutual reinforcement between online shopping and car use

• This e-consumption typology allowed to identify a positive correlation between car ownership and car use, on the one hand, and online consumption practices on the other. The “aficionados”, i.e. those with the most intensive and diverse online shopping practices, are indeed the most likely to both drive their own car and to use emerging mobility services. Furthermore, we find all these indicators to be positively correlated with income, suggesting that the latter is a crucial determinant of both online shopping and private car use.

• Considering that (both food and non-food related) e-consumption involves delivery trips that are, still, motorized for the greatest part, choosing at home (or at work) delivery may go against sustainable mobility. Integrating these observations with the analysis of Parisians’ and New Yorkers’ modal practices, we find that the impact of delivery-related trips widens the differences in terms of environmental sustainability. **This brings about the conclusion that, online consumption practices do not modify mobility practices, but rather, reinforce them.**

In the context of the development of e-commerce and instant delivery, how can we promote and ensure the development of sustainable modes for last mile delivery?

1. The role of the carrier: the question essentially arises over the last kilometre when carriers face significant optimization losses due to a fragmentation of flows, reinforced by instant delivery. Two paths seem interesting to explore to remedy this situation: the concentration of flows in space and the concentration of flows in time.

• In space: initiatives are being developed in this direction in Paris and New York with the pooling of deliveries, the incentive for the user to take on the last mile via innovations and picking up points.

• In time: night delivery or the development of automatic lockers.

2. The role of cities: cities also have a role to play in the face of increasing trade flows, with their expertise in this area being numerous and extensive (road network, parking, local economic development, land use and urban planning rules, social and environmental issues). In fact, many actions have already been taken and could be strengthened.

• Focus on governance and partnerships between public and private actors (focus groups, freight transport chartering, etc.)

•. Restrictions to truck access: in the form of delivery times, environmental zones, access regulations according to the type of vehicles authorized in urban centers (e.g. Crit’air stickers prohibit Euro 3 heavy trucks in Paris) or congestion taxing (based on the London model).

• Encourage “virtuous” transporters: in particular the use of electric bicycles and scooters.

To mitigate the challenges presented by the growth of delivery-based shopping, the NYU Rudin Center for Transportation recommends:

Optimize curb uses: Curbside deliveries, which occur throughout daytime and evening hours, must compete with personal vehicle parking and ride pickups and dropoffs. In front of building entrances, parking must be eliminated, and dedicating loading zones for freight loading and unloading and for-hire vehicle uses should be established. In addition, policymakers should incentivize off-peak delivery times.

These modifications will help to meet the competing demands of a modern street.

Encourage efficient delivery modes: To reduce freight and personal vehicle traffic, cities must legalize and encourage efficient delivery modes, including electric delivery bicycles and tricycles. These vehicles are already in use in several large cities and have reduced travel time and street congestion.

Employ existing vehicles: New York’s ample supply of taxis and for-hire vehicles can be used to deliver goods and meals for additional income and efficient use of vehicles already on the street.

Online shopping will continue to increase as more business and services move to delivery-based models. While residents should be made aware of their impacts on congestion, cities must accommodate street uses for a new economy.

Methodological appendices (in French)

1. Méthodologie d’enquête en ligne

Recrutement des panélistes

La réalisation d’une étude auprès d’un panel en ligne, si elle présente de nombreux avantages par rapport à l’enquête par téléphone ou en face à face (ex. : éviter le biais de désirabilité sociale), comporte également un certain nombre de limites, notamment des biais de recrutement. Un recrutement qui est trop centré sur une source spécifique augmente le risque d’interroger une catégorie de la population éloignée de l’ensemble de la population étudiée. Dans ce contexte, il peut **exister un biais de sélection** qui peut impliquer d’interroger plus de profils technophiles et très informés que la moyenne.

Passation de l’enquête et découpage territorial utilisé pour réaliser l’enquête

La passation de l’enquête a eu lieu entre fin octobre et novembre 2017. Elle a permis la constitution d’un échantillon initial de 2 212 répondants. Après apurement de la base et suppression des réponses incohérentes, 2 178 répondants sont retenus, dont 1 290 résidents parisiens et 888 New-Yorkais vivant à Manhattan[1]. **Les répondants ont été sélectionnés suivant une méthode d’échantillonnage dite « raisonnée »** visant à l’assemblage d’un **échantillon représentatif selon des quotas** :

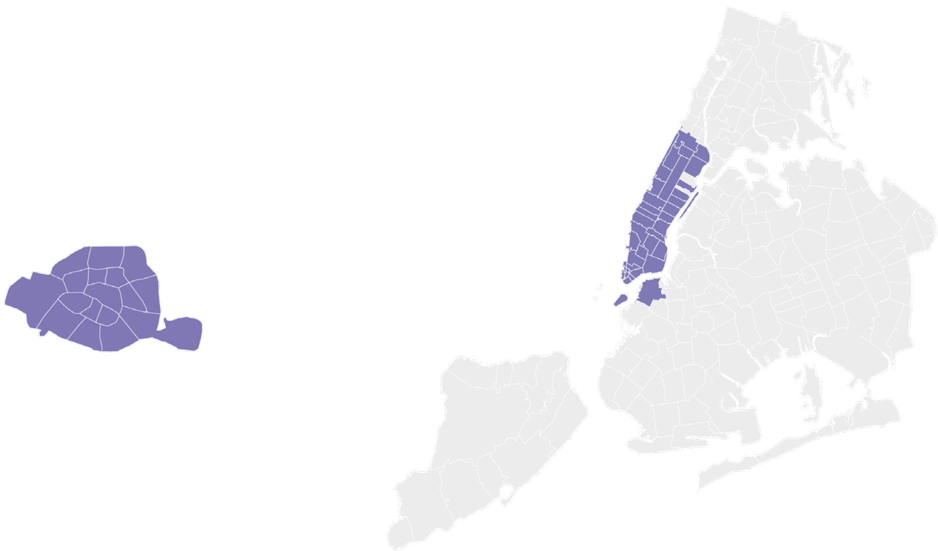
- D’âge, de sexe et de catégories socioprofessionnelles (CSP) dans le cadre de Paris ;
- D’âge, de sexe et de revenu du ménage dans le cadre de NYC.

Parce qu’il tient compte de la taille et de la composition du ménage, nous avons choisi de retenir le **revenu mensuel par unité de consommation (UC)** comme indicateur du niveau de vie des répondants de cette enquête. Les unités de consommation ont été calculées selon l’échelle d’équivalence dite de l’OCDE modifiée qui attribue 1 UC au premier adulte du ménage, 0,5 UC aux autres personnes de 14 ans ou plus et 0,3 UC aux enfants de moins de 14 ans.

L’échantillon a ensuite été redressé par pondération, de telle sorte que le poids des répondants de chaque ville correspond à la répartition réelle des habitants dans les périmètres concernés de chacune des villes. Ce redressement permet de comparer deux échantillons de grande taille et d’observer des variations significatives entre les deux villes.

Figure 9 Découpage territorial utilisé pour réaliser l’enquête : à gauche Paris, à droite New York

[1] Afin de respecter une homogénéité de densité entre les deux villes, le choix a été fait de limiter le périmètre de Manhattan aux quartiers suivants : 10004 ; 10005 ; 10006 ; 10280 ; 10038 ; 10007 ; 10002 ; 10013 ; 10012 ; 10009 ; 10003 ; 10014 ; 10010 ; 10011 ; 10016 ; 10001 ; 10017 ; 10018 ; 10036 ; 10022 ; 10020 ; 10019 ; 10021 ; 10023 ; 00083 ; 10028 ; 10024 ; 10029 ; 10025 ; 10035 ; 10026 ; 10027 ; 10044 ; 11201 (Brooklyn).



Réalisation : 6t-bureau de recherche, 2018

Caractéristiques générales du panel

Variables de quotas

Les répondants de cette enquête ont été sélectionnés suivant une méthode d'échantillonnage visant à l'assemblage d'un échantillon représentatif selon des quotas :

- D'âge, de sexe et de catégories socioprofessionnelles (CSP) pour l'échantillon parisien ;
- D'âge, de sexe et de revenu du ménage pour l'échantillon new-yorkais.

Par genre et âge

Tableau 58 Répartition par sexe de l'échantillon Paris — NYC

Vous êtes ...

	Femme	Homme	Total
NYC	474	414	888
Paris	692	598	1290

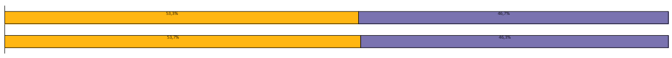
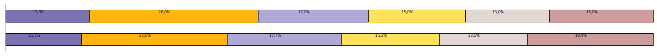


Tableau 59 Répartition des répondants par classe d'âge selon l'agglomération de résidence

Votre âge ...

	De 18 à 24 ans	De 25 à 34 ans	De 35 à 45 ans	De 45 à 54 ans	De 55 à 64 ans	65 et plus	Total
NYC	115	231	151	133	115	142	888
Paris	151	291	228	196	174	250	1290



Échantillon de 2 178 répondants résidant à Paris et New York

La répartition des hommes et femmes est équilibrée entre les deux échantillons. Les Parisiennes et New-Yorkaises sont légèrement surreprésentées : 53,7 % de Parisiennes contre 46,3 % de Parisiens et 53,3 % de New-Yorkaises contre 46,7 % de New-Yorkais.

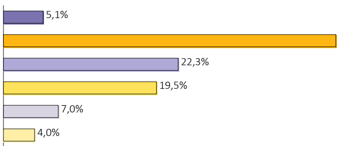
La moyenne d'âge des répondants parisiens est de 45 ans. Celle des **New-Yorkais est de 43 ans.** Les moins de 34 ans représentent plus d'un tiers des deux échantillons, tandis que les plus de 65 ans représentent un peu moins de 20 % des deux échantillons.

Selon la catégorie socioprofessionnelle

Tableau 60 Répartition de l'échantillon parisien selon la CSP

Quelle est votre catégorie socio-professionnelle ?

	Nb
Artisan, Commerçant, Chef d'entreprise	45
Cadre et profession intellectuelle supérieure	372
Profession intermédiaire	197
Employé	172
Ouvrier	62
Autre	36
Total	883

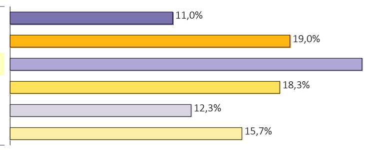


Échantillon de 883 personnes résidant à Paris

Tableau 61 Répartition de l'échantillon new-yorkais selon la CSP

What is your primary occupation category?

	Nb
Unskilled/Laborer, Retailer, Professional	75
Executive	129
Manager	162
Skilled Worker	124
Clerical or Office Worker	84
Other	107
Total	681



Échantillon de 681 personnes résidant à New York

Les répondants des deux échantillons appartiennent principalement à la catégorie des cadres et professions supérieures : c'est le cas pour 42,2 % de l'échantillon parisien et 42,7 % de l'échantillon new-yorkais. La deuxième catégorie la plus représentée est celle des professions intermédiaires (« skilled worker ») : 22,3 % pour l'échantillon parisien et 18,3 % pour l'échantillon new-yorkais.

Selon le niveau de revenu

Figure 10 Revenus mensuels déclarés du ménage et revenu mensuel par UC à Paris

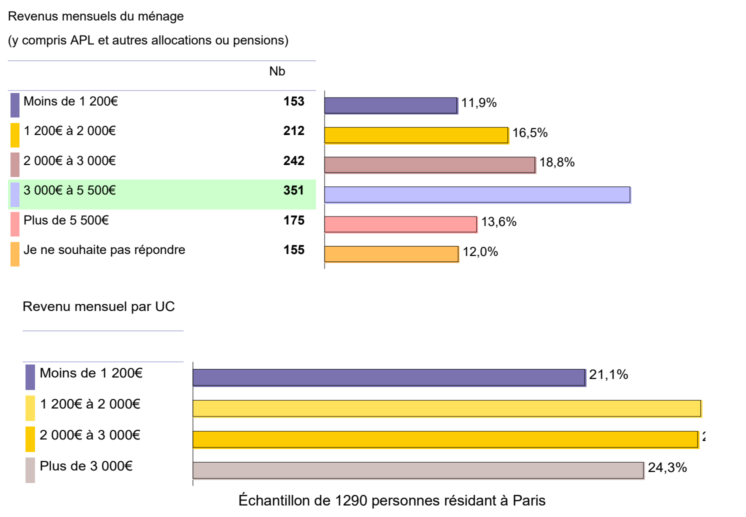
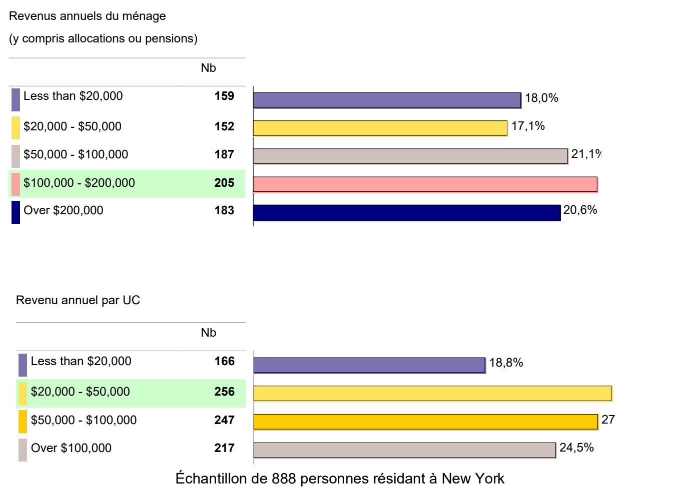


Figure 11 Revenus annuels déclarés des ménages new-yorkais et revenus annuels par unité de consommation



Dans le cadre de cette étude, nous avons souhaité retenir les revenus par unité de consommation (UC) afin de mieux refléter le niveau de vie des individus. La mesure du revenu par UC incorpore de l'information sociodémographique puisqu'il s'agit d'une mesure corrigée par la taille et la structure par âge du ménage selon l'échelle dit de l'OCDE modifiée[1]. Les revenus mensuels des ménages parisiens et les revenus annuels des ménages new-yorkais sont donc présentés à titre d'illustration. Ainsi, dans notre échantillon parisien, 24 % des répondants vivent dans des ménages aux revenus par unité de consommation supérieurs à 3 000 €, 27 % respectivement dans la tranche 2 000 € à 3 000 € et 1 200 € à 2 000 €. 20 % de l'échantillon se situe dans la tranche de revenus par unité de consommation inférieurs à 1 200 €.

Concernant l'échantillon new-yorkais, **25 % des répondants déclarent vivre avec dans des ménages aux revenus annuels par unité de consommation supérieurs à 100 000 $.** 28 % des New-Yorkais déclarent un revenu annuel par unité de consommation dans la tranche 50 000 $ à 100 000 $ et 29 % dans la tranche 20 000 $ à 50 000 $. **19 % de l'échantillon se situe dans une tranche inférieure à 20 000 $ par an.**

[1] Selon la définition de l'INSEE, l'unité de consommation (UC) est un système de pondération qui permet d'attribuer un coefficient à chaque membre du ménage et de comparer les niveaux de vie de ménages de tailles différentes. Pour rappel, dans notre échantillon, l'unité de consommation sera considérée comme suit, s'inspirant de l'échelle usuelle dite de l'OCDE, non applicable à l'identique faute de données :

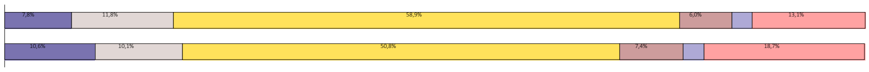
- Le premier adulte du ménage compte pour 1 UC.
- Les autres personnes âgées de plus de 11 ans pour 0,5 UC.
- Les personnes de moins de 11 ans pour 0,3 UC.

Autres variables individuelles

Selon le niveau de qualification

Tableau 62 Répartition de l'activité des répondants selon l'agglomération de résidence

	Etudiant	Actif travaillant à temps partiel	Actif travaillant à plein temps	En recherche d'emploi	Au foyer	Retraité	Total
NYC	70	105	523	54	21	117	888
Paris	137	130	655	95	31	241	1290



Échantillon de 2 178 répondants résidant à Paris et New York

Tableau 63 Répartition de l'échantillon résident à Paris selon le niveau de diplôme

Quel est le dernier diplôme que vous ayez obtenu ?

	Nb	
Pas de diplôme	32	2,5%
Diplôme de l'enseignement primaire ou secondaire (Certificat d'études, Brevet des collèges)	33	2,6%
BEP/CAP	82	6,4%
Baccalauréat	226	17,5%
Diplôme de l'enseignement supérieur de 1er cycle (DEUG, DUT, BTS)	192	14,9%
Diplôme de l'enseignement supérieur de 2ème cycle (Licence)	223	17,3%
Diplôme de l'enseignement supérieur de 2ème cycle (Maîtrise, Master) ou au-delà	503	
Total	1290	

Échantillon de 1290 personnes résidant à Paris

Tableau 64 Répartition de l'échantillon résident à New York selon le niveau de diplôme

What is the highest degree or level of school you have completed?

	Nb	
No diploma	15	1,7%
High School Diploma	66	7,5%
Some college credit, no degree	112	12,6%
Trade/technical/vocational training	22	2,4%
Bachelor's Degree	345	
Master's Degree	187	21,0%
Professional or Doctorate Degree	141	15,9%
Total	888	

Échantillon de 888 personnes résidant à New York

La majorité des deux échantillons est constituée d'actifs. Parmi ceux-ci, les actifs employés à temps plein sont fortement représentés : ces derniers sont surreprésentés parmi les New-Yorkais, leur part est de 59 % contre 51 % pour les Parisiens. **Les étudiants et les retraités sont surreprésentés au sein de l'échantillon parisien**, respectivement 11 % et 19 % versus 8 % et 13 %.

Le niveau d'éducation des Parisiens et New-Yorkais est élevé et en cohérence avec leur profil socioprofessionnel. 71 % des Parisiens interrogés dans le cadre de notre enquête sont diplômés de l'enseignement supérieur (1er, 2eme cycle ou au-delà), ce qui est supérieur aux valeurs observées par l'INSEE (2014)[1] en Ile-de-France (43,7 % de la population parisienne est titulaire d'un diplôme de l'enseignement supérieur). Cette tendance se confirme également pour les répondants new-yorkais qui sont 75 % à déclarer être diplômés de l'enseignement supérieur contre 36 % des habitants de New York selon l'US Census (2017)[2]. Cette surreprésentation peut s'expliquer en partie par le périmètre retenu pour l'enquête (les quartiers centraux de Manhattan). Moins d'un tiers des répondants (26 % des Parisiens et 23 % des New-Yorkais) a un diplôme de niveau baccalauréat ou inférieur.

[1] https://www.insee.fr/fr/statistiques/1288219#titre-bloc-8 (consulté le 23/04/2018)
[2] https://www.census.gov/quickfacts/fact/table/newyorkcitynewyork/PST045217#viewtop (consulté le 24/03/2018)

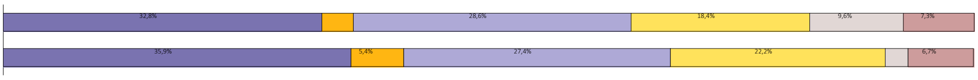
Par type de ménage

Tableau 65 Répartition des répondants par type de ménage selon l'agglomération de résidence

Type de ménage

	Seul(e)	Seul(e) avec enfant(s)	En couple sans enfant	En couple avec enfant(s)	En colocation	Avec vos parents	Total
NYC	291	29	254	163	85	65	888
Paris	463	70	354	286	31	87	1290

p = <0,01 ; Khi2 = 62,58 ; ddl = 5 (TS)



Échantillon de 2 178 répondants résidant à Paris et New York

Le poids des répondants vivant seul(e) parmi les deux échantillons est relativement similaire : ils représentent un peu plus d'un tiers des personnes interrogées (33 % des New-Yorkais et 36 % des Parisiens), tandis que **les personnes vivant en couple (avec ou sans enfants) représentent près de la moitié de l'échantillon** (47 % des New-Yorkais et 50 % des Parisiens).

Au total, environ **un quart des répondants** (22 % des New-Yorkais et 28 % des Parisiens) **ont au moins un enfant dans leur ménage**, qu'ils vivent seuls ou en couple. À noter que **les répondants parisiens sont plus nombreux à vivre en couple avec enfant(s)** que les répondants new-yorkais (22,2 % contre 18,4 %). Enfin, **la pratique de la colocation est quant à elle plus fréquente au sein de l'échantillon new-yorkais** (9,6 % contre 2,4 %).

Par type de résidence

Tableau 66 Répartition de l'échantillon selon le type de logement

Vous vivez

	Dans une maison individuelle		Dans un immeuble collectif	
	N	% cit.	N	% cit.
NYC	129	14,5%	759	85,5%
Paris	105	8,1%	1185	91,9%

p = <0,01 ; Khi2 = 22,39 ; ddl = 1 (TS)

Échantillon de 2 178 répondants résidant à Paris et New York

Une large majorité des répondants indiquent vivre dans un immeuble collectif (86 % des New-Yorkais et 92 % des Parisiens). Les résidents new-yorkais interrogés déclarent plus fréquemment vivre dans une maison individuelle (14,5 % contre 8 % des Parisiens).

Lorsqu'ils vivent dans un immeuble collectif :

- **Les répondants parisiens déclarent plus fréquemment disposer des services d'un concierge ou d'un gardien d'immeuble** que les New-Yorkais (68 % des Parisiens contre 53 % des New-Yorkais).

- **Les répondants new-yorkais habitent plus fréquemment dans un immeuble doté d'un ascenseur collectif** que les Parisiens (77 % des New-yorkais contre 73 % des Parisiens).

- Les Parisiens interrogés déclarent plus fréquemment vivre entre le 1er et le 6^{e} étage tandis qu'un tiers de l'échantillon new-yorkais (34 %) indique vivre au 7^{e} étage et plus.

EN RÉSUMÉ

- **La moyenne d'âge des répondants parisiens est de 45 ans. Celle des New-Yorkais est de 43 ans.**
- **La majorité des répondants des deux échantillons est constituée d'actifs**, majoritairement **diplômés de l'enseignement supérieur (License, Master)** et appartement à **la catégorie des cadres et professions supérieures**.
- **Un peu moins d'un quart parisien** vivent dans des ménages aux *revenus mensuels par unité de consommation dans la tranche 1200 € à 2000 €*.
- **Une peu moins d'un tiers des New-Yorkais** déclarent un revenu annuel par unité de consommation dans la tranche 20 000 $ à 50 000 $ (environ entre 1 340 € et 3 350 € par mois).
- Un peu moins de la moitié des deux échantillons est représenté par **des personnes vivant en couple (avec ou sans enfants). Un quart des répondants parisiens et new-yorkais ont au moins un enfant dans leur ménage**, qu'ils vivent seuls ou en couple.
- **La majorité des répondants vivent dans un immeuble collectif avec ascenseur** et disposent d'un concierge ou d'un gardien d'immeuble.

Profil numérique des sondés

Tout d'abord et de manière assez logique, la pratique d'achat en ligne est dépendante du degré d'accès à Internet. L'encadré ci-après décrit les principaux éléments concernant l'équipement en smartphone dans notre échantillon. En 2015, l'accès à Internet depuis le domicile des Franciliens était supérieur à celui observé à l'échelle nationale (80 %) avec 87 % des plus de 15 ans vivant en Ile-de-France équipés d'une connexion Internet.

PROFIL NUMÉRIQUE DES SONDÉS

- **91 % des répondants ont un smartphone** : 90 % des Parisiens et 93 % des New-Yorkais. Ce taux d'équipement apparaît relativement supérieur à celui caractérisant l'agglomération parisienne (77 %)[1] et New York (74 %)[2]
- Le taux de possession d'un smartphone est plus élevé chez les New-Yorkais (93 %) que chez les Parisiens (87 %). Ce taux est quasiment similaire chez les Parisiennes

[1] CREDOC, Baromètre du numérique – ARCEP, Edition 2016. À noter que depuis la dernière enquête, ce taux a certainement dû être revalorisé
[2] Siena College Research Institute, AT T Consumer Usage and Perception Survey, Edition 2015

(93 %) et les New-Yorkaises (94 %) interrogées.

- Le taux de possession d'un smartphone est très élevé dans l'échantillon parisien chez les 18 – 24 ans (98 %) et chez les 25 – 34 ans dans l'échantillon new-yorkais (98 %)
- Le taux de possession d'un smartphone est plus élevé chez les étudiants (98 %) que chez les retraités (76 %) ou les personnes en recherche d'emploi (81 %).

L'équipement en smartphone de notre échantillon est ainsi globalement très élevé ce qui pourrait traduire un biais de recrutement induit par la méthode d'enquête.

Caractéristiques du profil modal des répondants du panel

Équipement et usage des véhicules individuels motorisés

Si une majorité des personnes interrogées à Paris et New York possèdent le permis de conduire, un peu moins de la moitié d'entre elles sont cependant non motorisées : 44 % des Parisiens et 56 % des New-Yorkais déclarent ne pas posséder de voiture dans leur ménage.

Cela peut en partie s'expliquer par le périmètre d'études des deux villes. Dans notre échantillon, le nombre de ménages équipé d'une voiture (y compris un véhicule de fonction) est surreprésenté parmi l'échantillon parisien : 56 % d'entre eux déclarent posséder au moins un véhicule. D'après les dernières données de l'Insee[1], publiées en juin 2017 et qui datent de 2014, le taux d'équipement automobile des ménages à Paris était de 36,8 %. La part des non-motorisés de l'échantillon de New-Yorkais semble également surreprésentée : en 2015, l'US Census[2] estiment à 76,6 % le nombre de ménages démotorisés à Manhattan contre 56 % pour notre panel.

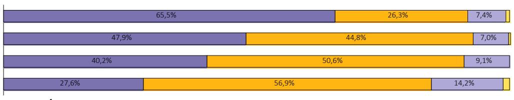
À noter par ailleurs que les personnes non motorisées à Paris déclarent des revenus inférieurs aux personnes motorisées : 65 % des ménages gagnant moins de 1 200 € par unité de consommation sont non motorisés, contre 28 % des ménages aux revenus mensuels supérieurs à 3 000 € par unité de consommation. À New York, les personnes déclarant des revenus faibles (inférieur à 20 000 $ annuels par UC) sont effectivement moins motorisées que les ménages gagnants entre 50 000 $ et 1 000 000 $ annuel par unité de consommation, mais les très haut revenus (supérieurs à 100 000 $) sont également fortement non motorisés (62 %).

[1] https://www.insee.fr/fr/statistiques/2012694#titre-bloc-1
[2] U.S. Census Bureau, 2015 American Community Survey 1-Year Estimates. Data compiled by the Tri-State Transportation Campaign, source : http://blog.tstc.org/wp-content/uploads/2017/04/how-car-free-is-nyc.pdf

Tableau 67 Taux d'équipement à Paris selon le revenu mensuel par unité de consommation déclarée

	0	1	2	3 ou plus
Moins de 1 200€	158	63	18	2
1 200€ à 2 000€	148	139	22	1
2 000€ à 3 000€	124	156	28	0
Plus de 3 000€	76	157	39	3

p = <0,01 ; Khi2 = 87,08 ; ddl = 9 (TS)

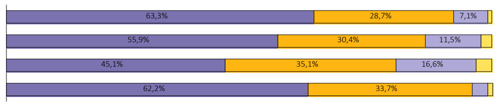


Échantillon de 1 290 répondants résidant à Paris

Tableau 68 Taux d'équipement à New York selon le revenu annuel par unité de consommation déclarée

	0	1	2	3 ou plus
Less than $20,000	105	48	12	2
$20,000 - $50,000	143	78	29	6
$50,000 - $100,000	112	87	41	8
Over $100,000	135	73	7	2

p = <0,01 ; Khi2 = 37,20 ; ddl = 9 (TS)



Échantillon de 888 répondants résidant à New York

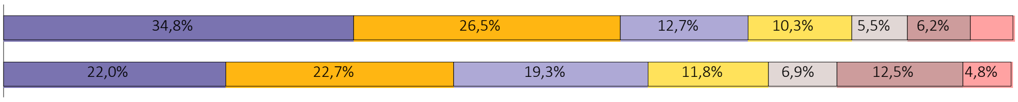
Tableau 69 Fréquence d'usage de la VP en tant que conducteur possédant au moins au moins une voiture selon l'agglomération

Les New-Yorkais qui ont au moins une voiture l'utilisent de manière plus fréquente que les Parisiens. Ainsi, les New-Yorkais sont 35 % à utiliser leur voiture personnelle « tous les jours ou presque » contre 11 % des Parisiens.

A quelle fréquence utilisez-vous la voiture en tant que conducteur ?

	Tous les jours ou presque	2-3 fois par semaine	1 fois par semaine	2-3 fois par mois	1 fois par mois	Moins souvent	Jamais
NYC	128	98	47	38	20	23	15
Paris	142	147	124	76	44	81	31

p = <0,01 ; Khi2 = 32,25 ; ddl = 6 (TS)



Échantillon de 1 014 répondants résidant à Paris et New York

Par ailleurs, **la part des répondants possédant un deux-roues motorisé est faible.** Le taux d'équipement des Parisiens est relativement plus important : 14 % d'entre eux déclarent posséder un deux-roues motorisé contre 9 % des New-Yorkais représentés dans l'échantillon. Cette proportion apparaît cependant supérieure à celle de l'EGT 2010 (6 % des ménages vivant à Paris[1]) et du NYC Census (2 % des ménages)[2].

Abonnement et usage des transports en commun

Le panel interrogé déclare majoritairement posséder un abonnement de transport en commun (mensuel et annuel confondus) : 69 % des Parisiens et 55 % des New-Yorkais.

[1] www.omnil.f

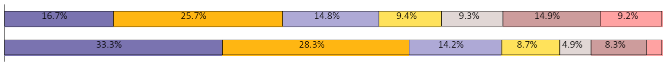
[2] http://www.nyc.gov/html/dot/downloads/pdf/nyc-motorcycle-safety-study.pdf

Tableau 70 Fréquence d'usage du bus selon l'agglomération

A quelle fréquence utilisez-vous le bus ?

	Every day or almost every day	2-3 times a week	Once a week	2-3 times a month	Once a month	Less often than that	Never	Total
NYC	82	126	73	46	46	73	45	491
Paris	296	251	127	78	43	74	20	889

p = <0.01 ; Khi2 = 87.97 ; ddl = 6 (TS)



Échantillon de 1 380 répondants disposant d'un abonnement de TC et résidant à Paris et New York

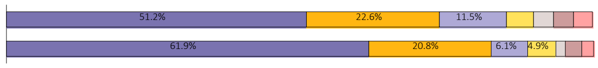
Tableau 71 Fréquence d'usage du métro selon l'agglomération

A quelle fréquence utilisez-vous le métro ?

SUBSCRIPTION_PT Parmi "Yes"

	Every day or almost every day	2-3 times a week	Once a week	2-3 times a month	Once a month	Less often than that	Never
NYC	251	111	56	23	16	16	17
Paris	550	185	55	44	13	25	18

p = <0.01 ; Khi2 = 25.85 ; ddl = 6 (TS)



Échantillon de 1 380 répondants résidant d'un abonnement de TC à Paris et New York

L'usage du bus est très contrasté entre les deux villes : l'usage fréquent de ce mode de transport est surreprésenté dans l'échantillon parisien : un Parisien sur trois utilise le bus tous les jours ou presque, contre un peu moins d'un New-Yorkais sur cinq. Cependant, l 'usage du bus est très contrasté entre les deux villes : l'usage fréquent de ce mode de transport est surreprésenté dans l'échantillon parisien : un Parisien sur trois utilise le bus tous les jours ou presque, contre un peu moins d'un New-Yorkais sur cinq. Malgré un taux d'abonnement aux transports publics élevé, les New-Yorkais interrogés ont un usage occasionnel de ce mode 19 % d'entre eux utilisent ce mode de transport seulement une à trois fois par mois (contre 13 % des Parisiens) et ils sont mêmes 9 % à ne jamais l'utiliser contre 2 % des parisiens**.** Une explication de cette sous-représentation dans l'échantillon new-yorkais peut-être liée aux problèmes de fiabilité et de ponctualité que connaît le système de bus new-yorkais depuis quelques années[1]. Un récent rapport du TransitCenter[2] analysait qu'entre 2002 et 2015, l'usage du bus à New York a baissé de 16 % alors qu'à la même période, la population de la ville a augmenté de 5,7 % et l'usage du métro de 24,7 %.

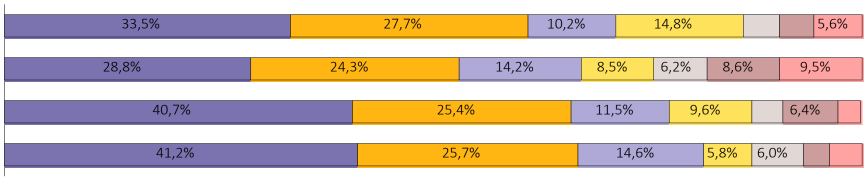
La part des répondants qui utilisent le métro quotidiennement est importante au sein des deux échantillons. Les Parisiens interrogés se démarquent en utilisant plus fréquemment le métro quotidiennement (62 % contre 51 % des New-Yorkais).

Tableau 72 Fréquence d'usage du métro selon le revenu annuel par unité de consommation déclarée

[1] TransitCenter, Fixing New York City's Buses, Juillet 2016
[2] Idem

	Tous les jours ou presque	2-3 fois par semaine	1 fois par semaine	2-3 fois par mois	1 fois par mois	Moins souvent	Jamais
Less than $20,000	56	46	17	25	7	6	9
$20,000 - $50,000	74	62	36	22	16	22	24
$50,000 - $100,000	101	63	29	24	9	16	7
Over $100,000	89	56	32	13	13	7	8

p = 0,002 ; Khi2 = 40,07 ; ddl = 18 (TS)



Échantillon de 491 répondants possédant un abonnement TC et résidant à NYC

À noter qu'il existe une différence significative[1] entre la fréquence d'usage du métro et le niveau de revenu des New-Yorkais par unité de consommation. Ainsi, plus de la moitié (58 %) des ménages gagnants plus 50 000 $ par an et par UC utilisent le métro tous les jours ou presque contre 43 % des ménages gagnant moins de 50 000 $. Une explication pourrait être liée au fait que le poids des actifs au sein des ménages new-yorkais les plus aisés est plus important qu'au sein des ménages gagnant moins de 50 000 $ par an et par UC.

Équipement et usages des modes actifs (marche à pied, vélo)

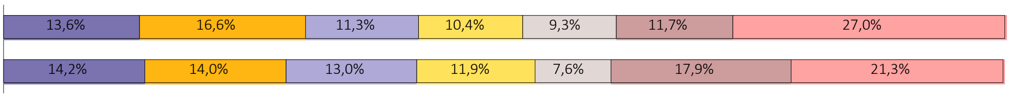
Les répondants sont très bien équipés en vélo personnel : près de la moitié des Parisiens et New-Yorkais déclarent posséder au moins un vélo personnel (42,9 % des New-Yorkais et 47,2 % des Parisiens) et les répondants en sont les principaux utilisateurs au sein de leur ménage pour les ¾ d'entre eux. À titre de comparaison, selon la dernière EGT (2010), 71 % des ménages parisiens n'ont pas de vélo. Environ un répondant sur cinq dispose par ailleurs d'un abonnement à un service de vélo partagé : 16 % des New-Yorkais interrogés sont ainsi abonnés à Citibike contre 18 % des Parisiens interrogés avec Vélib'.

Tableau 73 Fréquence d'usage du vélo personnel ou en libre-service selon l'agglomération

A quelle fréquence utilisez-vous le vélo (personnel ou en libre-service) ?

	Tous les jours ou presque	2-3 fois par semaine	1 fois par semaine	2-3 fois par mois	1 fois par mois	Moins souvent	Jamais
NYC	57	69	47	43	39	49	112
Paris	99	98	91	83	53	125	149

p = 0,04 ; Khi2 = 13,28 ; ddl = 6 (S)



Échantillon de 1113 répondants possédant un vélo personnel ou un abonnement à un service de vélos partagés et résidant à Paris et New York

[1] Résultat uniquement significatif pour l'échantillon new-yorkais

Sans qu'il y ait de différence significative entre les deux échantillons, 42 % des Parisiens et 41 % new-yorkais sont des cyclistes réguliers qui utilisent le vélo au moins une fois par semaine. En revanche, les New-Yorkais sont surreprésentés parmi les répondants n'utilisant jamais le vélo (27 % contre 21 % des Parisiens). À l'inverse, les répondants parisiens sont surreprésentés parmi les usagers très occasionnels de ce mode : près d'un cinquième d'entre eux l'utilisent moins d'une fois par mois contre 12 % des New-Yorkais interrogés.

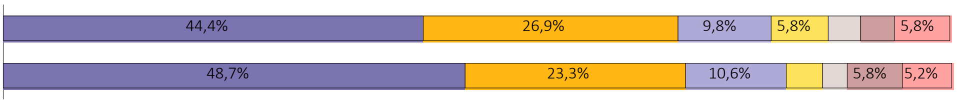
Les Parisiens utilisent la marche à pied pour un déplacement complet avec des fréquences plus quotidiennes que les New-Yorkais : 49 % pour les Parisiens et 44 % pour les New-Yorkais.

Tableau 74 Fréquence d'usage de la marche à pied pour un déplacement complet selon l'agglomération

A quelle fréquence utilisez-vous la marche à pied pour un déplacement complet ?

	Tous les jours ou presque	2-3 fois par semaine	1 fois par semaine	2-3 fois par mois	1 fois par mois	Moins souvent	Jamais
NYC	394	239	87	52	30	34	52
Paris	628	301	137	50	33	74	67

p = 0,02 ; Khi2 = 15,43 ; ddl = 6 (S)



Échantillon de 2 178 répondants résidant à Paris et New York

Pratiques des offres de mobilité partagée (avec ou sans chauffeur)

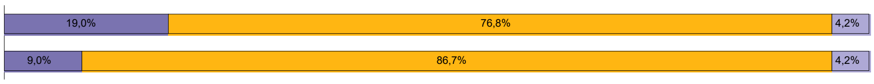
Si l'on s'intéresse aux usages des offres de mobilité partagée (avec ou sans chauffeur) au sein de notre échantillon, on remarque que près de 10 % des répondants parisiens et 20 % des répondants new-yorkais déclarent être abonnés à une offre d'autopartage (en boucle ou en trace directe). À titre de comparaison, ce résultat est supérieur aux valeurs observées sur la pénétration du système Autolib' (avant sa fermeture) à Paris : en 2017, les usagers de ce service représentaient 4,5 % de la population parisienne.

Tableau 75 Abonnement à un service d'autopartage selon l'agglomération

Êtes-vous abonné(e) à un service d'autopartage (Autolib', Communauto, Matcha ou Zipcar) ?

	Oui	Non	Je ne connais pas ce type de service	**Total**
NYC	**169**	**682**	**37**	**888**
Paris	**116**	**1119**	**55**	**1290**

p = **<0,01** ; Khi2 = **46,25** ; ddl = **2** (**TS**)



Échantillon de 2 178 répondants résidant à Paris et New York

Les New-Yorkais de notre échantillon utilisent des services de mobilité avec chauffeur (VTC, taxi) plus fréquemment que les Parisiens. Trois fois plus de Parisiens n'utilisent jamais de taxis que les New-Yorkais.

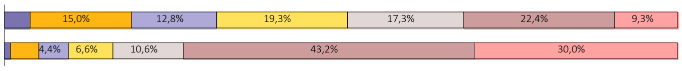
L'usage de services de VTC est également plus fréquent parmi les usagers new-yorkais : un tiers d'entre eux déclarent utiliser ce type de service une fois par semaine contre 13 % des Parisiens.

Tableau 76 Fréquence d'usage du taxi selon l'agglomération

A quelle fréquence utilisez-vous le taxi ?

	Tous les jours ou presque	2-3 fois par semaine	1 fois par semaine	2-3 fois par mois	1 fois par mois	Moins souvent	Jamais
NYC	35	134	113	172	153	199	82
Paris	14	53	57	85	137	558	387

p = 0,00 ; Khi2 = 400,84 ; ddl = 6 (TS)



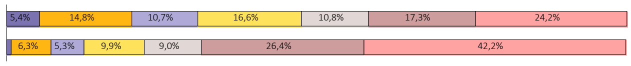
Échantillon de 2 178 répondants résidant à Paris et New York

Tableau 77 Tableau 23 Fréquence d'usage des VTC (Uber, Chauffeur privé, Lyft, etc.) selon l'agglomération

A quelle fréquence utilisez-vous des services de VTC (Uber, Chauffeur privé, Heetch, etc.)?

	Tous les jours ou presque	2-3 fois par semaine	1 fois par semaine	2-3 fois par mois	1 fois par mois	Moins souvent	Jamais
NYC	48	131	95	148	96	154	215
Paris	12	81	68	127	116	340	545

p = 0,00 ; Khi2 = 187,47 ; ddl = 6 (TS)



Échantillon de 2 178 répondants résidant à Paris et New York

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