



DUFF & PHELPS

Protect, Restore and Maximize Value

Millennials and Auto Trends Report

Will Millennials Drive the Automotive Industry Forward?

Duff & Phelps surveyed 2,150 millennials to determine if they will buy fewer cars than prior generations.





IN THIS REPORT

Contents

1 FOREWORD

2 KEY FINDINGS

Millennials value car ownership—will the trend continue? 2

Millennial city dwellers will continue to own/lease cars 5

Having a car = necessity 7

Will millennials replace their old car with a new one? 8

Millennial considerations in the car-buying process 10

Market share of hybrid/electric vehicles poised to increase 12

Factors driving millennial car ownership 14

How transportation options stack up for millennials 15

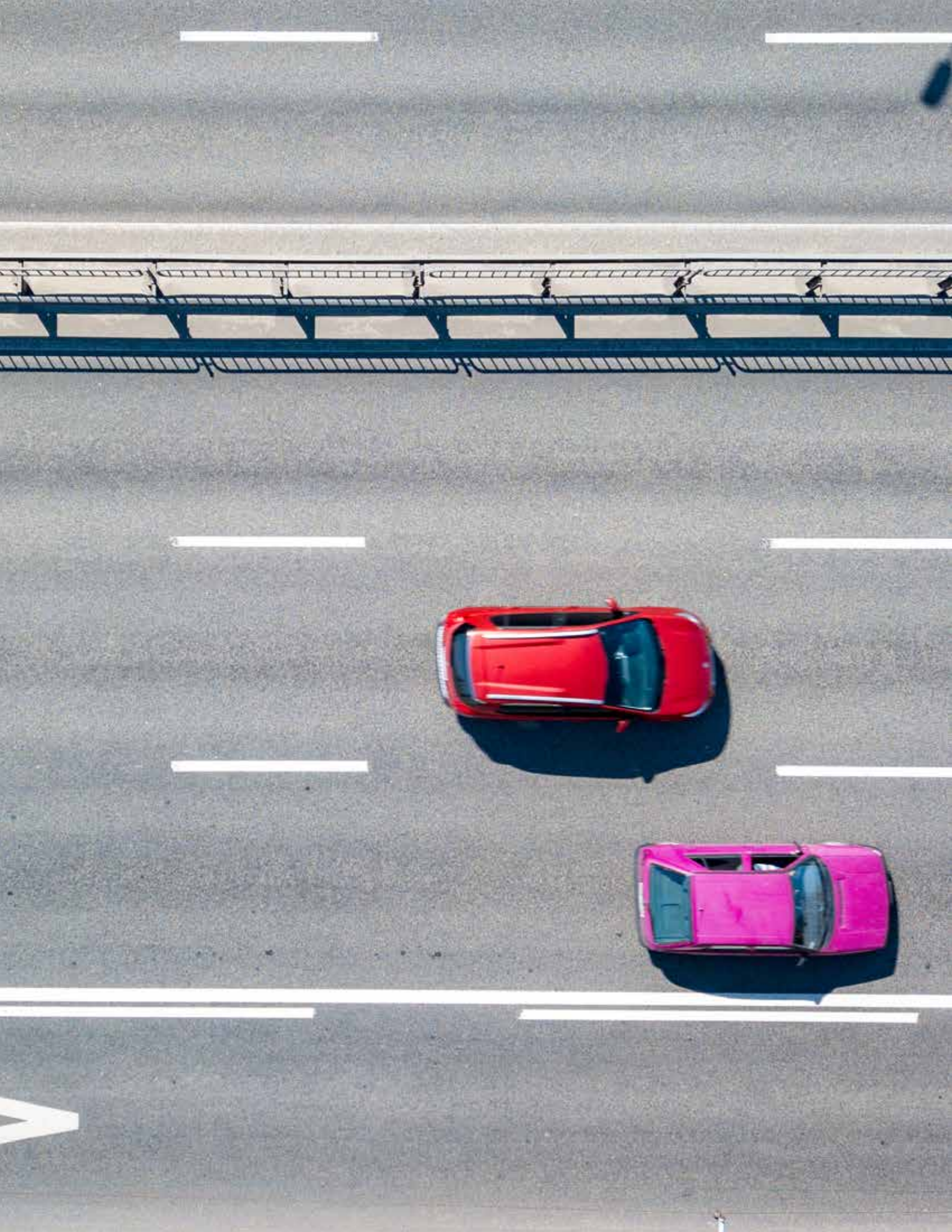
Millennials prefer owning/leasing a car over ride-hailing services 18

19 WHERE IS THE AUTOMOTIVE MARKET HEADING?

20 CONTACTS

21 SURVEY SCOPE

22 GLOBAL APPENDIX





FOREWORD

Will Millennials Drive the Automotive Industry Forward?

Duff & Phelps surveyed 2,150 millennials to reveal if they will buy fewer cars than prior generations.

Given that 2.4 billion people were born between 1980 and 1996, according to *Bloomberg*, it's a question that's likely keeping some auto industry executives up at night—and there's some anecdotal evidence behind it. Millennials prefer public transportation, ride-hailing, biking/scootering and even walking to driving their own cars—at least that's the conventional wisdom.

However, we wanted to go further than conventional wisdom. In a survey of 2,150 millennials from around the globe, we obtained real numbers for what millennials, a generation that currently makes up nearly one-third of the world's population, will do when it comes to buying automobiles in the years ahead.

The survey's results indicate that common assumptions about low car ownership should be tossed out along with tired millennial stereotypes like poor work ethic, a sense of entitlement and bad attitudes.

Stereotypes aside, the results were surprising given that a higher percentage of millennials live in cities¹ (with access to myriad public transportation options) relative to other generations, and millennials tend to be more environmentally conscious.² However, it's clear that millennials actually do value car ownership, and a high percentage expect to make another car purchase in the next five years. This is good news for automotive companies currently facing headwinds for the first time this decade.

Our survey was performed online with the goal of obtaining responses from men and women between the ages of 23 and 38 (born between the years 1980 and 1996) from some of the largest automotive markets around the world. The survey examines the responses on a global level as well as a regional level grouped as follows: the U.S. and Canada; Latin America, including Mexico, Brazil and Argentina; Europe, including Germany, UK, France and Italy; and Asia, including China (other than Hong Kong), Hong Kong, Japan, India and Singapore. The charts, data and findings in this report are based on the global survey responses unless otherwise indicated.

In the following report, we present our key findings regarding car ownership, interest in electric and hybrid electric vehicles, and the factors driving these trends. We provide supporting charts, data and the scope of the survey in the Appendix section at the end of this report.

¹ "Millennials and Rapid Urbanization," *Urban Getaway*, accessed September 25, 2019, <https://www.urbangateway.org/news/millennials-and-rapid-urbanization>.

² Jennifer Robinson, "Millennials Worry About the Environment – Should Your Company?," *Gallup*, accessed September 25, 2019, <https://www.gallup.com/workplace/257786/millennials-worry-environment-company.aspx>.

KEY FINDINGS

Millennials Value Car Ownership —Will The Trend Continue?

Three-quarters of millennials own cars—most expect to purchase or lease a new car in the next five years.

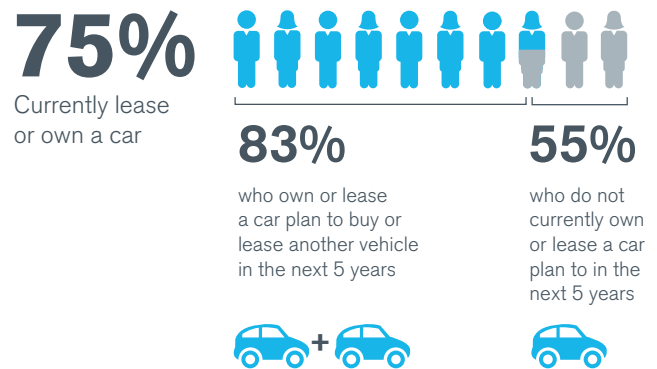
The future isn't certain, but 75% of the respondents to our global survey currently own or lease a car—and of that group, 83% expect to purchase or lease another car in the next five years. Diving into different regions also provided important information about the future of car ownership.

At a regional level, responses across Asia varied the most. China (other than Hong Kong) and India had very high levels of respondents who own or lease, at 89% and 87%, respectively. Hong Kong and Singapore reported lower levels, at 62% and 46%, respectively. Japanese respondents reported average levels of ownership or leasing at 71%.

The high percentages in China (other than Hong Kong) and India are not that surprising given the growth in automotive sales in those countries over the last decade as well as the status attached to car ownership, particularly in China.³ Lower ownership and leasing rates in Hong Kong and Singapore likely stem from highly regarded public transportation systems in those countries. Additionally, Singapore's government limits⁴ the number of license plates and has enacted high taxes on car ownership.

Tracking with the global findings, 83% of Asian car owners who responded to the survey expect to buy or lease another car in the next five years, with only Japan well below that mark at just 67%. China (other than Hong Kong) was somewhat of an outlier (in Asia) on the other end of the spectrum with 92% expecting to buy or lease another car in the next five years—a surprising finding given that car sales in China are declining⁵ for the first time since the 1990s.⁶ Millennials in China may be optimistic about their medium- to long-term economic prospects despite the current market downturn.

Global ownership or leasing of cars is high for millennials



3 "Why Do the Chinese Love Long Wheelbase Cars?," OneShift, accessed September 25, 2019, <https://www.oneshift.com/features/11805/why-do-the-chinese-love-long-wheelbase-cars>.

4 Mimi Kirk, "In Singapore, Making Cars Unaffordable Has Only Made Them More Desirable," City Lab, accessed September 25, 2019, <https://www.citylab.com/transportation/2013/06/singapore-making-cars-unaffordable-has-only-made-them-more-desirable/5931/>.

5 "Chinese Automobile Sales Decline for 14th Time in 15 Months," Bloomberg, accessed September 25, 2019, <https://www.bloomberg.com/news/articles/2019-09-09/chinese-automobile-sales-decline-for-14th-time-in-15-months>.

6 Yilei Sun and Brenda Goh, "China car sales hit reverse for first time since 1990s," Reuters, accessed September 25, <https://www.reuters.com/article/us-china-autos/china-car-sales-hit-reverse-for-first-time-since-1990s-idUSKCN1P805Z>.

Will millennials buy or lease vehicles over the next 10 years?

MILLENNIALS WHO CURRENTLY OWN OR LEASE A CAR

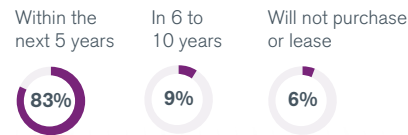
U.S. AND CANADA



LATIN AMERICA



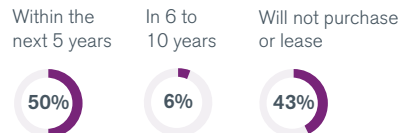
EUROPE



ASIA



MILLENNIALS WHO CURRENTLY DON'T OWN OR LEASE A CAR



The U.S. at 74% and Germany at 77% were on the low end relative to global respondents. While this is still a high level of respondents who expect to purchase or lease a new car in the next five years, car sales in these countries have started⁷ to decline⁸ after historically high rates for the last several years. Millennials in these countries were significantly more impacted by the Great Recession than the Chinese⁹ and may be more concerned about their economic prospects given the current economic uncertainty.

Regarding current rates of owning or leasing cars, Latin America was last (slightly behind Asia). But respondents in Latin America with cars were most likely to buy or lease a new one in the next five years, at 92%. When looking at other continents, respondents in the U.S. and Canada were the least likely to buy or lease a new car in the next five years at 77%, while Europe responded at the global rate of 83%.

For the 25% of global respondents who do not own or lease a car, a significantly lower percentage expect to purchase or lease another car in the next five years. Fifty-five percent of respondents expect to purchase a car in the next five years, compared to the 83% who answered affirmatively and already own or lease a car.

The implication for the auto industry is that almost 75% of millennials expect to purchase or lease a new car in the next five years. When extrapolated to the full millennial population, this indicates the potential for a substantial uptick in car purchases in the coming years.

Regardless of qualifiers, the sentiment behind the findings is great news for an automotive industry currently enduring some global headwinds. However, it should be noted that 11% of respondents who do not currently own or lease a car never expect to get one, indicating a segment of the population that is likely unreachable.

7 Dave Roysse, "Declining Car Sales Help Drive Germany Toward Recession," *Yahoo Finance*, accessed September 25, <https://finance.yahoo.com/news/declining-car-sales-help-drive-162158679.html>.

8 Nick Bunkley, "8 first-half sales tales," *Automotive News*, accessed September 25, <https://www.autonews.com/sales/8-first-half-sales-tales>.

9 Yi Wen and Jing Wu, "Withstanding Great Recession Like China," *SSRN*, accessed September 25, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2407164.



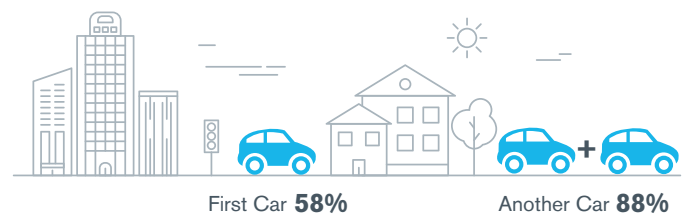
Millennial City Dwellers Will Continue to Own/Lease Cars

According to our survey, 88% of global millennials living in cities who have a car expect to purchase or lease another one in the next five years.

We dug deeper to analyze results specific to city dwellers. City dwellers in the U.S. and Canada had lower rates of owning and leasing a car than the global respondents—not surprising as city dwellers tend to have more public transportation options, greater access to scooters and less distance to walk between destinations.

There was almost no urban/rural divide in Europe, where ownership/leasing was 78% for city dwellers and 79% for respondents across the region. However, in Latin America and Asia, city dwellers were slightly more likely to own or lease a car at 73% and 74%, respectively, relative to respondents across the region at 70% and 71%, respectively. Rampant poverty in the rural and developing parts of Latin America and Asia may drive down car ownership and leasing. Additionally, scooters and motorcycles are offsetting lower rates of car ownership in these regions, as China alone has more than 300 million scooters and motorcycles on the road.¹⁰

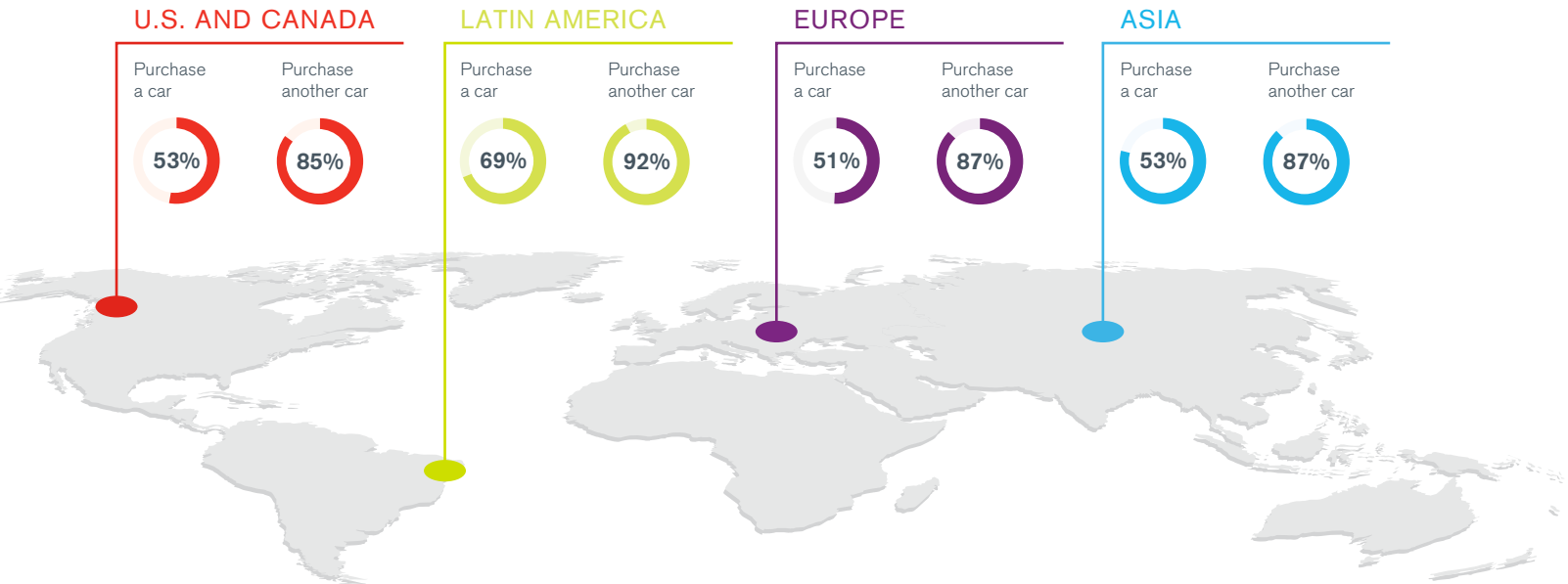
Millennials living in the city expect to purchase or lease a new car in the next five years



¹⁰ Katia Moskvitch, "The problem with China's electric scooter revolution? It's too quiet," Wired, accessed September 25, 2019, <https://www.wired.co.uk/article/why-electric-motor-scooters-are-leading-electric-vehicle-revolution-in-asia>.



Percentage of millennial city dwellers who plan to purchase/lease their first car vs. city dwellers who plan to purchase/lease another car over the next five years



More city dwellers (88%) who have a car expect to purchase or lease another one in the next five years than the overall respondent pool (83%). Approximately 85% of city dwellers in the U.S. and Canada expect to purchase or lease another car in the next five years compared to 77% overall. In Europe and Asia, 87% of city dwellers expect to purchase or lease another car in the next five years compared to 83% overall. In the UK, city dwellers responded at a higher rate than the overall pool at 92% versus 83%.

Globally, for city dwellers without a car, the results were not materially different from all dwellers. Regionally, only Asia varied significantly for city dwellers relative to everyone else at 53% who expect to purchase or lease a car in the next five years versus 43% overall. In China (other than Hong Kong) and India, 100% of city dwellers who do not already own or lease a car expect to purchase one in the next five years. This compares to 82% and 69% of city, suburban and rural dwellers in China and India, respectively, who do not currently own or lease. That generally accounts for the regional difference of city dwellers compared to all dwellers in Asia and provides further support that millennials who live in cities in these countries likely see car ownership as a status symbol.

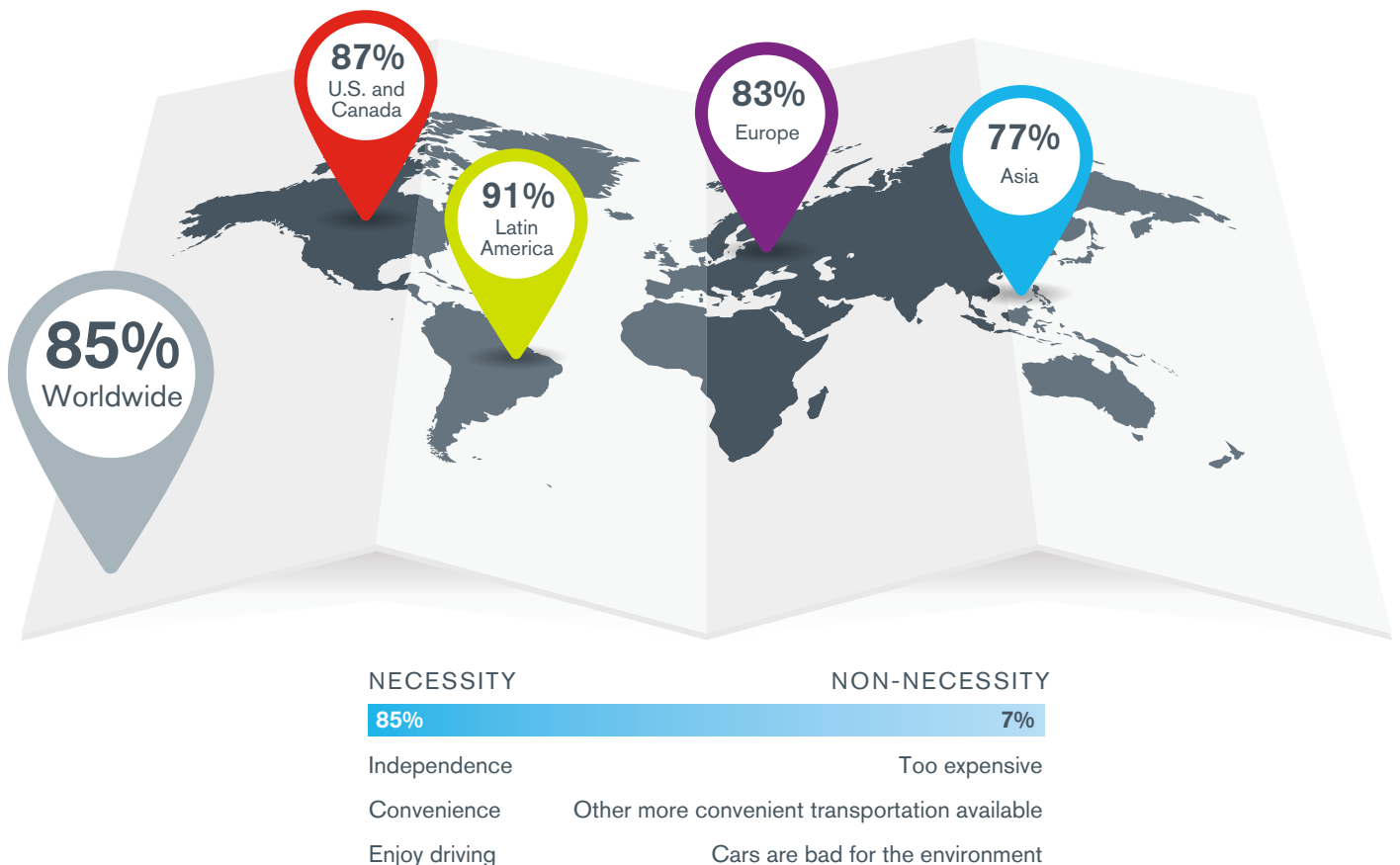
Having a Car = Necessity

According to our survey, having a car is a necessity for the vast majority of millennials.

Globally, 61% strongly agree and 24% somewhat agree, meaning 85% of respondents believe a car is a necessity on some level. The top reasons why cars are (and are not) a necessity are provided in the image below.

In Asia, convenience scored significantly higher than all other reasons, especially in China (other than Hong Kong), Japan and Singapore. Although this is somewhat surprising given bad traffic and high-quality public transportation options in the region, marketing executives in the automotive industry may want to consider stressing convenience in their Asian market advertising campaigns. For the small number of respondents who do not see a car as a necessity, their reasoning varied—availability of other transportation options was the most frequent reason given in Brazil, Hong Kong and India. Respondents in France and Italy said having a car was bad for the environment. Respondents in China (other than Hong Kong) said other transportation options were more convenient and bad for the environment equally but didn't say cars were too expensive.

Having my own car is a necessity



Will Millennials Replace Their Old Car with a New One?

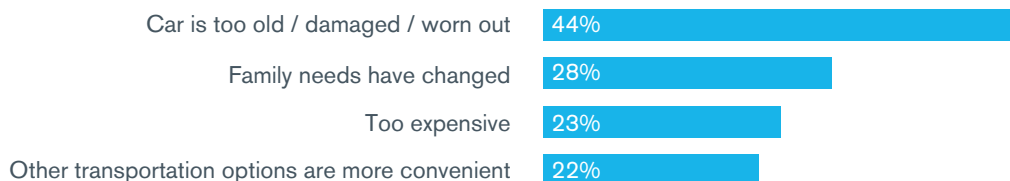
Of the 57% of millennials who plan to sell their car or terminate their lease in the next three years, 94% plan to replace their vehicles.

When millennials decide to sell their car or terminate their lease, almost all of them (94%) expect to replace it, a percentage that was largely constant across the four regions in the survey. This percentage reflects the 57% of those surveyed who believe they are very likely or somewhat likely to sell or terminate the lease in the next three years. Results were similar on a regional basis, except for the U.S. and Canada, where only 43% of respondents answered the question that way. Additionally, 24% of respondents in the U.S. and Canada believe it is very unlikely they will sell or terminate their leases in the next three years (compared to 5%, 8% and 9% in Latin America, Europe and Asia, respectively). This prompts the question as to whether millennials in the U.S. and Canada have recently acquired a car and expect to keep it longer than three years, are concerned about the economic environment over the next three years, or some combination of the two.

On the other end of the spectrum, in India and Argentina, at 80% and 74% of respondents, respectively, believe they are very likely or somewhat likely to sell their car or terminate the lease in the next three years. These survey results are not surprising in Argentina, where the average age of a vehicle is 17 years,¹¹ compared to approximately 12 years in the U.S. But the results in India are a bit surprising given recent reports of economic uncertainty¹² in the country.

Globally, the top four reasons for selling or terminating leases in the next three years are shown below. The top two reasons are no surprise, especially as more and more millennials start families.

Top reasons why global millennials will sell or terminate the lease on their car in the next three years

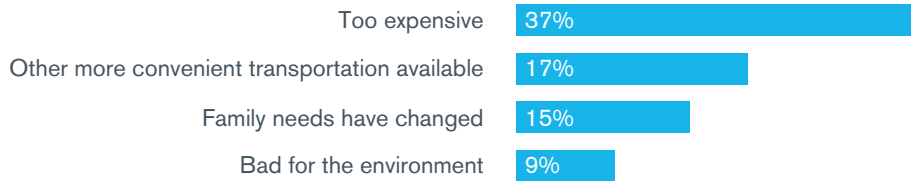


¹¹ Kirstin Linnenkoper, "Car recyclers in Argentina battle bureaucracy," Recycling International, accessed September 25, 2019, <https://recyclinginternational.com/business/car-recycling-argentina/19303/>.

¹² Praveen Chakravarty, "Viewpoint: How serious is India's economic slowdown?," *BBC News*, accessed September 25, 2019, <https://www.bbc.com/news/world-asia-india-49470466>.

The top reasons why global respondents said they will not buy or lease another car are in the chart below. With “too expensive” as the most common choice across all regions, respondents are displaying concerns about affordability, as their reasoning for selling their car or terminating a lease. Their rationale could be due to millennials’ cost-sensitive nature or near-term concerns about the economy.

Top reasons why global millennials won’t buy or lease another car













































Millennial Considerations in the Car-Buying Process

Price, fuel efficiency and safety are the three most important features to millennials when evaluating vehicles.

When millennials look for a new car, price, fuel efficiency and safety are top of mind, followed by style/look, size, brand reputation, technology and features, speed and other. There were no significant differences by country relative to the global results—other than in France and Italy where style and look was the third most popular response. Price and fuel efficiency are generally related and possibly reflect millennials' concerns about cost. In contrast, car buyers as a whole cite fuel efficiency as the 20th most important consideration in their purchase, providing further support as to the importance of this attribute to millennials.¹³

What features are important in the car-buying process?

 Price  Safety  Fuel Efficiency  Style and Look

RANK	Argentina	Brazil	Canada	China - other than HK	France	Germany	Hong Kong (HK)	India	Italy	Japan	Mexico	Singapore	UK	U.S.
1														
2														
3														

Millennials from France and Italy chose style and look as a vehicle preference over safety.

Millennials tend to rely mainly on personal research for their car-buying decisions. Globally, 68% of respondents selected personal research as most important, followed by online reviews (49%), family's or friend's influence (48%) and brand reputation/public perception (48%). Information from dealerships and social media were selected least frequently.

Millennials appear to be confident in performing their own research when car shopping, which speaks to their fluency with the internet and the near-limitless amount of information available to assist them, suggesting that Original Equipment Manufacturer (OEM) websites where you can build and price your own car, may be more critical for drawing in millennial buyers than dealerships—in which millennials placed low reliance.

13 Jeff Plungis, "Automakers Sell Performance, but Consumers Want Fuel Economy and Safety," *Consumer Reports*, accessed September 25, 2019, <https://www.consumerreports.org/cro/buying-a-car/automakers-sell-performance-consumers-want-fuel-economy-and-safe>.



Top information sources that millennials prefer in the car-buying decision process



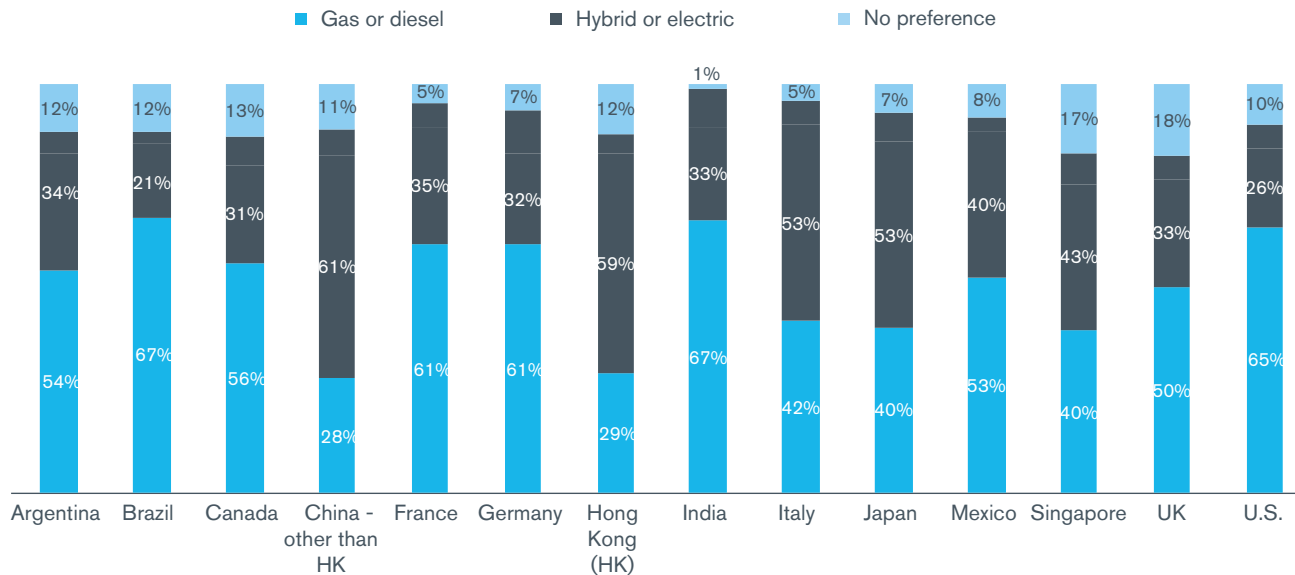
Market Share of Hybrid/Electric Vehicles (EVs) Poised to Increase

While gas or diesel powertrains remain the preferred choice globally, millennials' interest in hybrids and EVs is high relative to current market share.

Despite the rise of hybrid vehicles in recent years, gas or diesel engines are still the preferred powertrain of choice with 54% of global respondents saying it appeals to them the most. However, 30% of respondents said a hybrid electric powertrain is most appealing, and 6% preferred an all-electric (EV).

Tracking¹⁴ with recent sales figures,¹⁵ interest in hybrids and EVs was even higher in Asia, with 41% of respondents selecting gas or diesel as their preference, 43% selecting hybrid electric powertrains and 7% selecting EVs. The higher interest in hybrids and EVs in Asia relative to the rest of the world is primarily driven by China (other than Hong Kong) and Hong Kong, where only 28% and 29% of respondents, respectively, find gas or diesel most appealing. Countries where more respondents selected gas or diesel relative to the global results include Brazil, India (the top two at 67%), the U.S., France, Germany and Canada.

Preference in powertrain



14 Michael Dunne, "Slowing economy will not halt China's EV ambitions," Nikkei Asian Review, accessed September 25, 2019, <https://asia.nikkei.com/Opinion/Slowing-economy-will-not-halt-China-s-EV-ambitions>.

15 "Asia Light Electric Vehicle Market Set to Reach USD 52.8 billion by 2024, Observing a CAGR of 7.0%: VynZ Research," *Global Newswire*, accessed September 25, 2019, <https://www.globenewswire.com/news-release/2019/04/22/1807410/0/en/Asia-Light-Electric-Vehicle-Market-Set-to-Rreach-USD-52-8-billion-by-2024-Observing-a-CAGR-of-7-0-VynZ-Research.html>.

In 2018, approximately 2.4 million hybrid electric vehicles and 2.0 million EVs were sold globally,¹⁶ compared to global car sales of approximately 94.6 million vehicles.¹⁷ These sales represent a global market share of approximately 2.5% for hybrids and approximately 2.1% for EVs, or a global market share of 4.7% for cars with some type of battery propulsion system. Market share growth is expected to continue into 2019, with EV sales expected¹⁸ to be approximately 2.8 million vehicles.

China continues to be the EV market share leader, accounting for approximately 56% of global EV sales in 2018.¹⁸ The country is expected to increase its market share in EVs in 2019 as government regulations have limited the number of new vehicles with internal combustion engines. Until recently, the Chinese government limited hybrid electric vehicles the same as internal combustion engines, but the government has loosened these limits, which will likely produce increased sales of this type of propulsion system.

Although gas or diesel powertrains remain the preferred choice globally, millennials' interest in hybrids and EVs is high relative to current market share. The survey data suggests that a hybrid or EV appeals most to 36% of millennials surveyed globally compared to a global market share of 4.7%. This finding may suggest some significant growth opportunity for hybrids and EVs. There appears to be even more opportunity when analyzing the data by country.

China (including Hong Kong) is the world's largest automotive market with approximately 30% market share. Here, hybrids and EVs are most appealing to more than 60% of millennials. Car sales in China of roughly 27 million in 2018¹⁹, suggest potential interest in the purchase or lease of at least 8 million vehicles by millennials alone. In the U.S., the world's second-largest automotive market by country, hybrids and EVs appealed most to 26% of millennials. Although this is significantly lower than interest in China, it could suggest interest in the purchase or lease of over 2 million vehicles.

Globally, millennial interest in the purchase or lease of hybrids and EVs could be well over 17 million vehicles. Since nearly 100 different models of plug-in vehicles are expected to come to the market²⁰ by 2022, it appears the global OEMs are spending their product development budgets wisely based on the data in our survey.

Millennials' preference toward hybrid/electric vehicles vs. current global market share of all consumers

36%*



Of surveyed millennials find hybrid or electric vehicles are most appealing.

* millennial set (n) - 2,150

4.7%

Current global market share of hybrid or electric vehicles.

16 "Global Electric Vehicle Market Outlook Report 2019-2025," *Business Wire*, accessed September 25, 2019, <https://www.businesswire.com/news/home/20190409005921/en/Global-Electric-Vehicle-Market-Outlook-Report-2019-2025>.

17 Poskitt, "Global growth," *LMC Locomotive*.

18 "Global Electric Vehicle Report," *Business Wire*.

19 "Forecast: China car market to shrink again in 2019," *LMC Automotive*, accessed September 25, 2019, <https://lmc-auto.com/wp-content/uploads/2019/06/LMC-Auto-China-car-market-to-shrink-again-in-2019-JUNE-2019.pdf>.

20 "Nearly 100 electrified models slated to arrive through 2022," *Automotive News*, accessed September 25, 2019, <https://www.autonews.com/article/20181001/OEM04/181009990/nearly-100-electrified-models-slated-to-arrive-through-2022>

Factors Driving Millennial Car Ownership

Millennials choose their residence based largely on proximity to work and family.

As the millennial generation ages, they are beginning to start families, which can lead them to make the same car buying decisions as prior generations. Globally, millennials ranked their most important considerations when selecting their current residence in the following order:

1. Proximity to work
2. Proximity to family and / or friends
3. Proximity to cultural attractions and / or opportunities
4. Proximity to where you grew up
5. Proximity to better schools

There were a couple of differences in the global results regionally: Proximity to work was the most popular consideration in all regions except Europe, where proximity to family was more popular. Overall, the top three results were fairly predictable, but we were somewhat surprised that proximity to better schools was not higher. This finding could be explained by the current age range of millennials, with some already having started families and some who have not. Interestingly, proximity to better schools was higher in China (other than Hong Kong) than in all other countries.

Certain other cultural differences by country were evident as well. For example, in Hong Kong, proximity to public transportation was more important than origin (where you grew up), which makes sense given Hong Kong's well-known traffic issues.²¹ Somewhat surprisingly, affordability did not rank highly other than in Singapore, which could indicate that millennials elsewhere feel more financially secure, despite some indications about short-term economic concerns.

The overall results were generally expected and do not suggest any likely concern for the auto industry. While there have been some recent trends in companies moving back to cities, at least in the U.S., since our survey data shows that more city dwellers expect to purchase a car than the group as a whole, this may suggest a slightly positive impact for car sales.

Millennials choose residence locations based largely on proximity to work and family



²¹ "Hong Kong's perennial traffic jams can and should be cleared," *South China Morning Post*, accessed September 25, 2019, <https://www.scmp.com/comment/insight-opinion/article/1893600/hong-kongs-perennial-traffic-jams-can-and-should-be-cleared>.

How Transportation Options Stack Up For Millennials

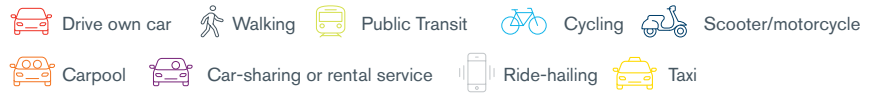
Given the frequency with which millennials drive their own cars, it appears millennials may view driving as more cost effective and reliable, and their best option given the distance they are traveling.

We asked millennials to indicate the frequency with which they use various transportation options. Globally, millennials drive their own car most frequently, without any other option close behind. Additionally, respondents who said they drive their car never or less than once a week was the least frequent response.

Daily Transportation Habits Globally



Top Daily Transportation Options by Country



RANK	Argentina	Brazil	Canada	China - other than HK	France	Germany	Hong Kong (HK)	India	Italy	Japan	Mexico	Singapore	UK	U.S.
1	Drive own car	Drive own car	Drive own car	Drive own car	Drive own car	Drive own car	Public Transit	Drive own car	Drive own car	Drive own car	Drive own car	Walking	Drive own car	Drive own car
2	Walking	Walking	Walking	Walking	Walking	Walking	Drive own car	Scooter/motorcycle	Walking	Walking	Walking	Public Transit	Walking	Walking
3	Public Transit	Public Transit	Public Transit	Scooter/motorcycle	Public Transit	Public Transit	Walking	Walking	Public Transit	Public Transit	Public Transit	Drive own car	Public Transit	Public Transit
4	Carpool	Scooter/motorcycle	Carpool	Public Transit	Cycling	Cycling	Carpool	Cycling	Cycling	Cycling	Carpool	Scooter/motorcycle	Car-sharing or rental service	Carpool
5	Cycling	Cycling	Car-sharing or rental service	Cycling	Car-sharing or rental service	Carpool	Taxi	Ride-hailing	Carpool	Car-sharing or rental service	Cycling	Cycling	Ride-hailing	Scooter/motorcycle
6	Car-sharing or rental service	Ride-hailing	Ride-hailing	Car-sharing or rental service	Ride-hailing	Car-sharing or rental service	Ride-hailing	Public Transit	Scooter/motorcycle	Carpool	Car-sharing or rental service	Carpool	Cycling	Ride-hailing
7	Scooter/motorcycle	Carpool	Taxi	Taxi	Scooter/motorcycle	Scooter/motorcycle	Cycling	Taxi	Car-sharing or rental service	Ride-hailing	Taxi	Taxi	Carpool	Cycling
8	Ride-hailing	Car-sharing or rental service	Cycling	Carpool	Carpool	Taxi	Car-sharing or rental service	Car-sharing or rental service	Taxi	Scooter/motorcycle	Scooter/motorcycle	Car-sharing or rental service	Taxi	Car-sharing or rental service
9	Taxi	Taxi	Scooter/motorcycle	Ride-hailing	Taxi	Ride-hailing	Scooter/motorcycle	Carpool	Ride-hailing	Taxi	Ride-hailing	Ride-hailing	Scooter/motorcycle	Taxi

n=2150

In Asia, however, more millennials use public transportation relative to the global results, as 51% use it either daily or between two and six times per week. By country, outliers relative to their regions include Mexico, where 42% of respondents carpool either daily or between two and six times per week, a data point that still supports individual car ownership.

In China (other than Hong Kong), a significantly higher number of respondents use their car either daily or between two and six days per week relative to the global results at 87%, supporting extremely high daily commute times in China, which can be as high as almost six hours per day²² in certain cities. Conversely, in Hong Kong, which also has intense traffic, 67% of respondents use public transportation daily or between two and six times per week, followed by respondents who drive their car at 54%, significantly lower than the global and regional results.

In addition, respondents in Singapore rely heavily on public transportation—72% of respondents use it daily or between two and six times per week, followed by walking at 66% and driving their car at 42%. Research indicates²³ that Hong Kong and Singapore had the two highest-rated public transportation systems in the world, with high marks for affordability, safety, convenience and rail infrastructure.

22 Shan Xin, "Commuters travel nearly 6 hours a day in China's most congested city," *En.People.Cn*, accessed September 25, 2019, <http://en.people.cn/n3/2018/0119/c90000-9317374.html>

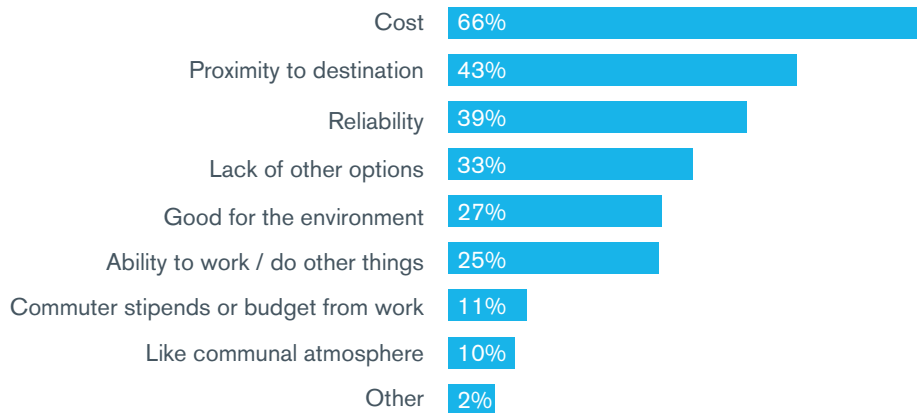
23 Stefan Knupfer, Vadim Pokotilo, and Jonathan Woetzel, "Elements of success: Urban transportation systems of 24 global cities," *McKinsey & Company*, accessed September 25, 2019, <https://www.mckinsey.com/business-functions/sustainability/our-insights/elements-of-success-urban-transportation-systems-of-24-global-cities>.

In contrast, in India, where public transportation is limited, 89% of respondents use their car either daily or between two and six times per week, whereas only 37% of respondents use public transportation daily or between two and six times per week. Respondents from India also use scooters, mopeds or motorcycles more often than cars, with 57% of respondents using one daily or between two and six times per week.

Taking these findings broadly, millennials use public transportation quite frequently when efficient, cost-effective options are available. It is possible that more government-funded public transportation could be more of a risk factor for automotive industry growth than a purported generational desire to drive less, if governments decide to fund infrastructure spending.

Following up on the frequency with which millennials use various transportation options, we asked them to list their top reasons for choosing each transportation option.

Top reasons for millennials' transportation choice



Based on the results, millennials cited cost, proximity to their destination and reliability as most important. Given the frequency with which millennials drive their cars, they may view driving as more cost-effective, reliable and their best option given the distance they are traveling. In Hong Kong and Singapore, where public transportation is more common, the reasons respondents selected were similar to the global results, providing further support that if public transportation was improved globally, it could reduce car usage.

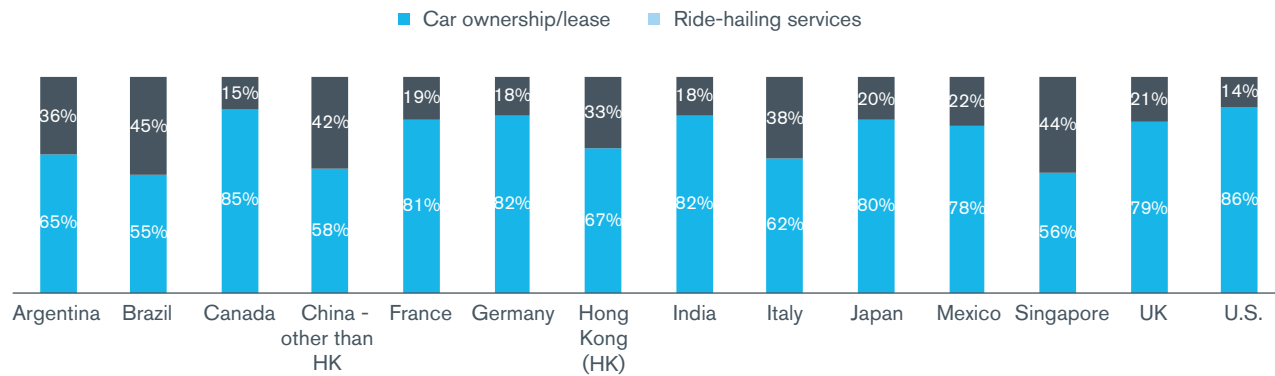


Millennials Prefer Owning/Leasing a Car Over Ride-Hailing Services

Globally, 75% of millennials chose owning/leasing a car over using ride-hailing services, if they would cost the same.

We also asked millennials about the fairly recent phenomenon of ride-hailing services (e.g., Uber, Lyft, Didi). Questions included whether these services were available in their neighborhood, whether they would cost the same as owning/leasing a car with insurance, and whether they would prefer owning/leasing a car or using a ride-hailing service. Overwhelmingly, 75% of millennials chose owning/leasing a car to ride-hailing. The results varied slightly by region, with Latin America at the low end with 66% and the U.S./Canada at the high end at 86%.

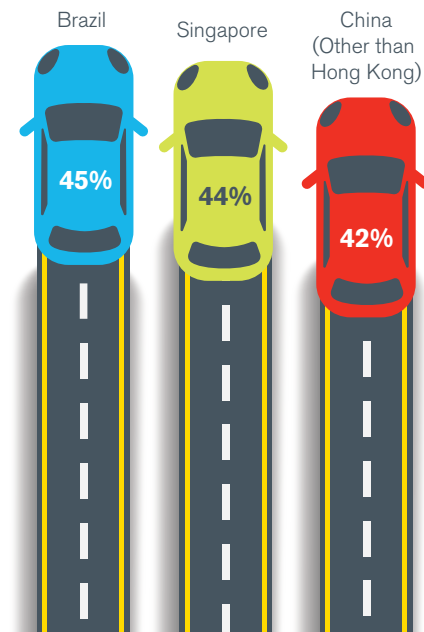
Preference in car ownership/lease vs. ride-hailing services, if the cost was equal



By country, outliers include Brazil at 55% choosing car ownership/leasing, China (other than Hong Kong) at 58%, Italy at 62% and Singapore at 56%. These results, taken together, indicate that when cost is not a factor, millennials prefer to have their own car over using a ride-hailing service.

This preference might have something to do with the high costs of reliance on ride-hailing²⁴ compared to car ownership. Given this significant difference in cost and millennials' preference of car ownership when cost is not a factor, it does not appear that ride-hailing will likely be a significant threat to car ownership/leasing for the millennial generation.

Brazil, Singapore and China show the most interest in ride hailing vs. owning/leasing a car over other countries



24 Lorie Konish, "Ride-hailing vs. car ownership: Here's which really costs more," *CNBC*, accessed September 25, 2019, <https://www.cnbc.com/2018/08/27/ride-hailing-vs-car-ownership-heres-which-really-costs-more.html>.

Where is the Automotive Market Heading?

Our global survey provides clear evidence that a high percentage of millennials currently own or lease a car and expect to purchase another one in the near future.

Concerns that the massive millennial generation will break from past generations on car ownership appear, at a minimum, to be overstated.

Perhaps the misunderstanding does not stem from a belief that millennials desire flexibility, but a misconception that cars are not the best option to provide that flexibility. One striking result is that for millennials who do not currently own a car, most, including city dwellers, expect to purchase or lease one in the next five years. And a majority of those that already own or lease a car expect to sell or terminate their lease and acquire another vehicle in the next three years. This should be particularly encouraging for auto industry executives staring in the face of declining sales in many countries and economic headwinds.

However, executives should take note of what kinds of cars millennials like. Our results show that millennials are significantly more interested in buying hybrids or EVs, especially when compared with current market share data. Smartly, the industry has taken notice and made the right technology investments—over 100 new plug-in models are expected to be in showrooms by 2022.

While the interest in potentially more eco-friendly powertrains tends to validate millennials' concern for the environment, the data clearly shows that millennials still highly value having their own car for the independence, convenience and general preference of driving over other transportation options. Thankfully for the automotive industry, the data has shown that 2.4 billion millennials worldwide will likely be driving the industry forward.



Contacts

AMERICAS

Mark Kwilosz

Head of North American Automotive
Chicago
+1 312 697 4677
mark.kwilosz@duffandphelps.com

Bob Bartell, CFA

Global Head of Corporate Finance
Chicago
+1 312 697 4654
bob.bartell@duffandphelps.com

Steve Burt

Global Head of M&A Advisory
Chicago
+1 312 697 4620
steve.burt@duffandphelps.com

David Althoff

Global Head of Diversified Industrials
M&A Advisory
Chicago
+1 312 697 4625
david.althoff@duffandphelps.com

Howard Johnson

Managing Director
M&A Advisory
Toronto
+1 416 597 4500
howard.johnson@duffandphelps.com

Alexandre Pierantoni

Head of Brazil Corporate Finance
São Paulo
+55 11 3192 8103
alexandre.pierantoni@duffandphelps.com

EUROPE

Andreas Stoecklin

Country Head of Germany
Frankfurt
+49 697 191 8466
andreas.stoecklin@duffandphelps.com

Klaus Pflum

Senior Advisor
Corporate Finance
Munich
+49 893 8888 4110
klaus.pflum@duffandphelps.com

Paul Teuten

Managing Director
M&A Advisory
London
+44 (0) 20 7089 4840
paul.teuten@duffandphelps.com

ASIA

David Lu

Head of Greater China Corporate Finance
Shanghai
+86 21 6032 0608
david.lu@duffandphelps.com

Scope of Survey

Our survey was performed online with the goal of obtaining responses from men and women between the ages of 23 and 38 (born between the years 1980 and 1996) from some of the largest automotive markets around the world, including Argentina, Brazil, Canada, China, France, Germany, Hong Kong, India, Italy, Japan, Mexico, Singapore, the UK and the U.S. With the country data, we grouped together certain regions, including the U.S. and Canada; Latin America, including Mexico, Brazil and Argentina; Europe, including Germany, the UK, France and Italy; and Asia, including China (other than Hong Kong), Hong Kong, Japan, India and Singapore.

Overall, our response rate was highly diverse across multiple factors. We obtained survey responses from 2,150 millennials around the globe, with 50% identifying as male and 50% identifying as female. The gender response rate by region and country was very similar to the global results.

Our regional response rate by age was similar to the global results. However, the response rate skewed older in Canada (60% of respondents in their 30s) and India (58% of respondents in their 30s).

We surveyed city, suburban and rural community/small town dwellers. Globally, 58% of respondents were city dwellers, 25% were suburban dwellers and 17% were rural/small town dwellers. Regionally, Latin American respondents from cities responded at a much higher proportion (75%) relative to the global results, whereas U.S. and Canadian respondents had a lower proportion in cities and a higher proportion in the suburbs relative to the global results. By country, over 70% of respondents in Argentina, Brazil, China (other than Hong Kong), Hong Kong, India and Mexico reported living in a city. Interestingly, less than 50% of respondents in Germany, Japan, the UK and the U.S. reported living in a city.

By country, over 45% of respondents from Hong Kong, India, Japan and Singapore reported living with their parents. A relatively low number of respondents from India and Japan reported living with their spouse/significant other at 12% and 25%, respectively.

After a delay caused in part by the Great Recession, millennials are finally beginning to start families. Globally, 49% of respondents reported having children. By country, over 65% of respondents in Argentina, China (other than Hong Kong) and Mexico reported having children, whereas over 65% of respondents in Canada, Germany and Japan reported not having children.

Globally, 65% of respondents reported as working full-time and 14% reported no current employment. By country, China (other than Hong Kong), Hong Kong, India and Singapore all had response rates of working full-time of over 80%, which is significantly higher than the global response rate (65%). Italy's response rate of working full-time (46%) was lower than the global response rate.

GLOBAL RESPONSE RATE SNAPSHOT

Age Range

- 23 to 26: **25%**
- 27 to 30: **26%**
- 31 to 34: **27%**
- 35 to 38: **21%**

Living Arrangements

- Live with my spouse /significant other: **43%**
- Live with my parents: **27%**
- Live with my or my spouses' children: **26%**
- Live by myself: **15%**
- Live with one or more roommates: **7%**

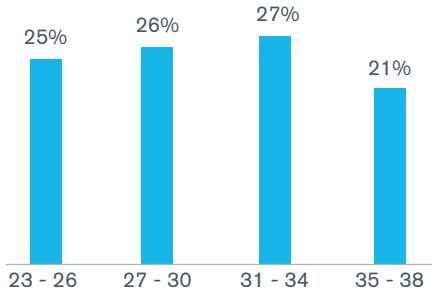


APPENDIX

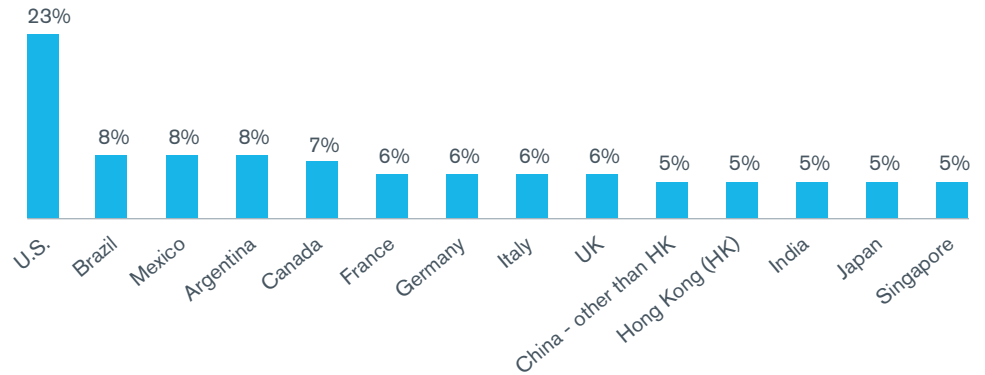
Global Demographics

If you would like a copy of the regional and country level data please email contactus@duffandphelps.com

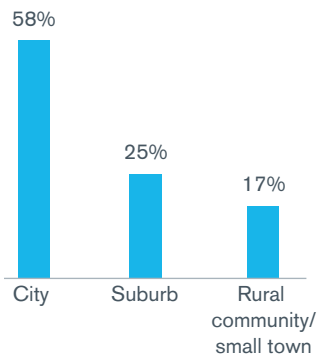
Please select your age range.



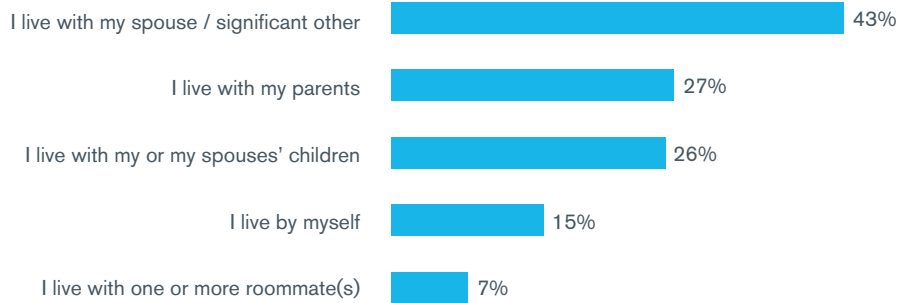
In which country are you currently living?



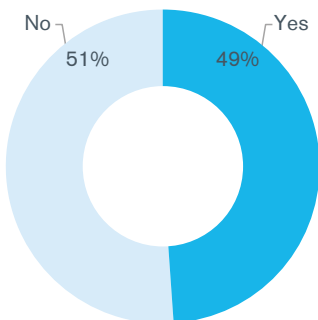
Where do you live?



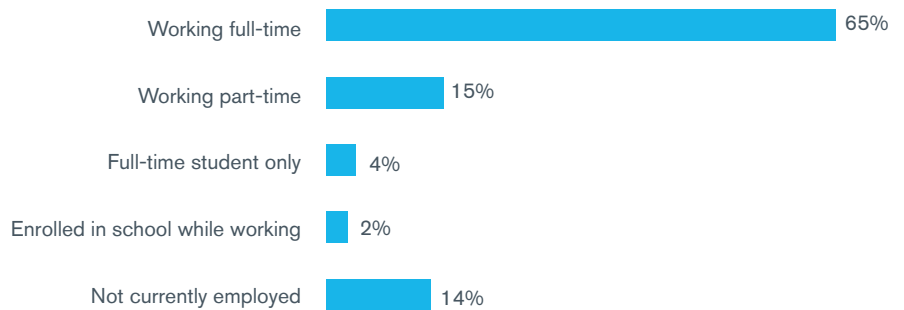
Which best describes your current living situation?



Do you have children?



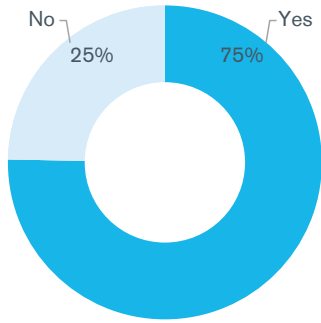
Which best describes your current employment status?



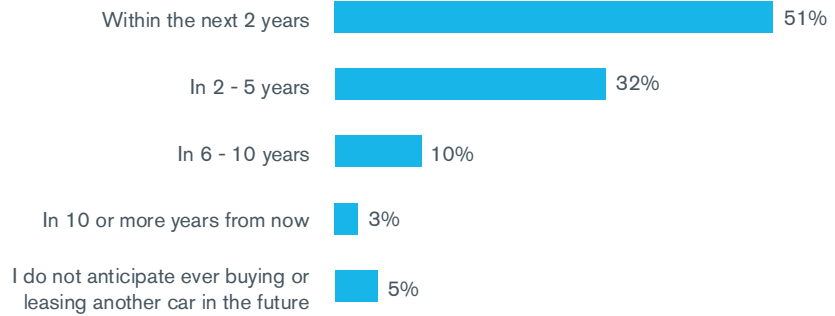
APPENDIX

Global Survey Responses

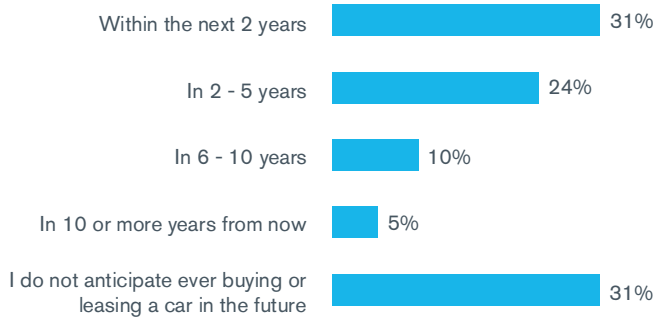
Q1. Do you currently own or lease a car?



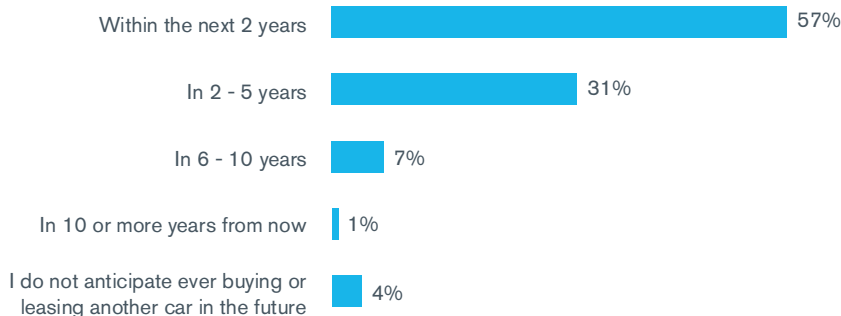
Q2A. If you own or lease a car, what would be your estimated time frame to purchase or lease another car?



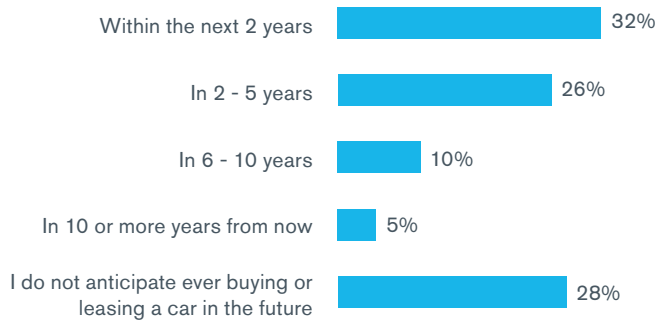
Q2B. If you don't currently own or lease a car, what would be your estimated time frame to purchase or lease a car?



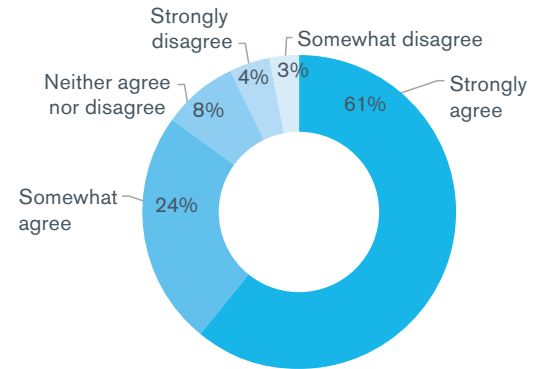
Q2C. City residents only - If you own or lease a car, what would be your estimated time frame to purchase or lease another car?



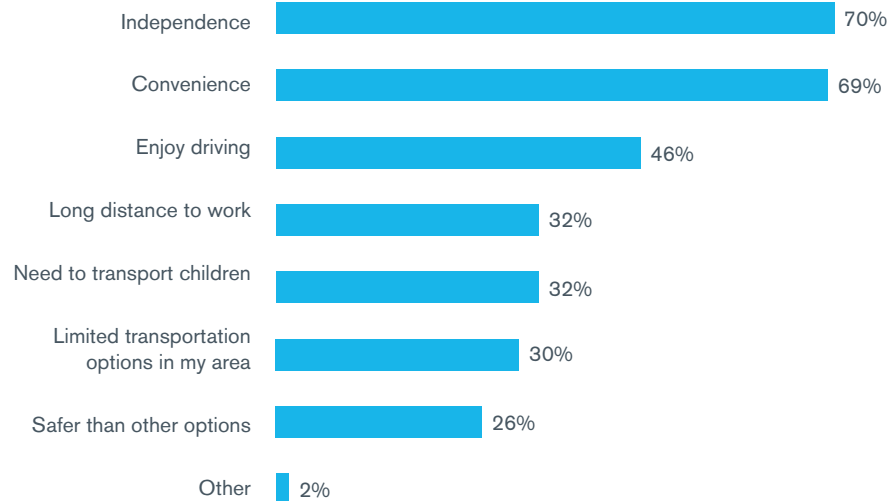
Q2D. City residents only - If you don't currently own or lease a car, what would be your estimated time frame to purchase or lease a car?



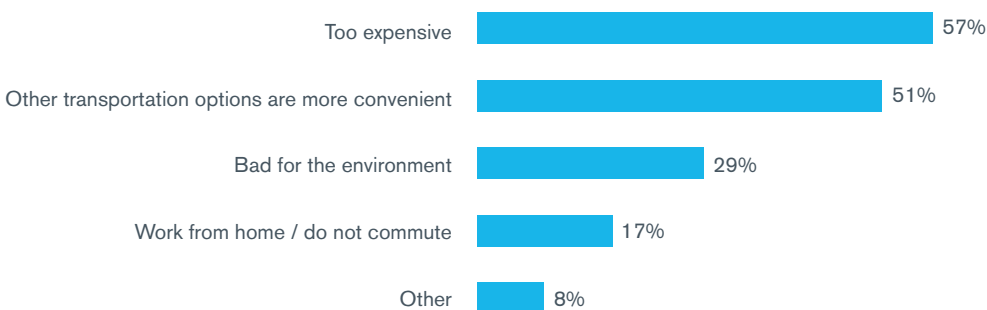
Q3. Please indicate your agreement with this statement: "Having my own car is a necessity."



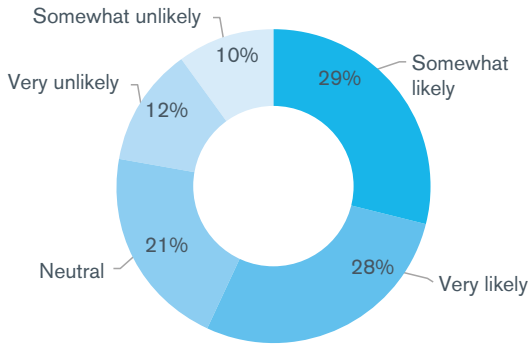
Q4A. What are the primary reasons you feel "Having my own car is a necessity."?



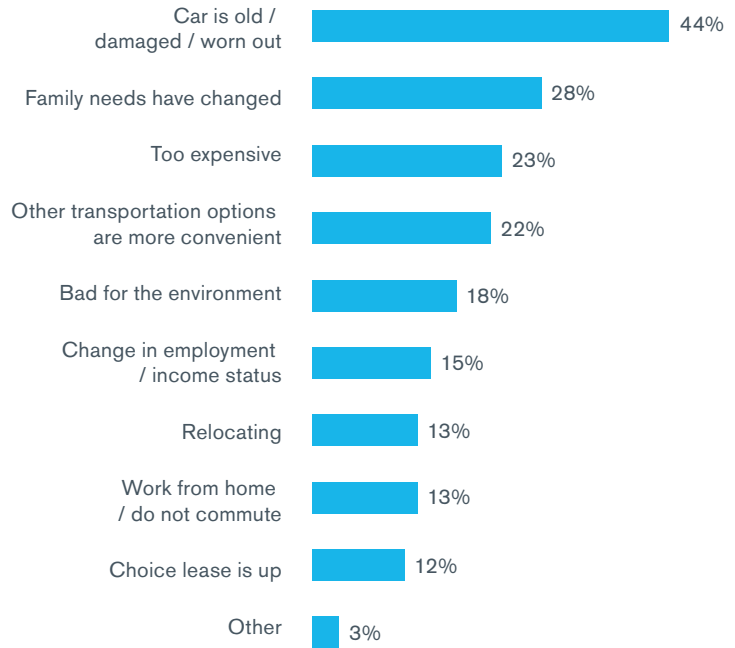
Q4B. What are the primary reasons you don't feel "Having my own car is a necessity."?



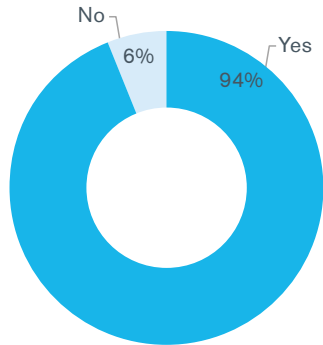
Q5. What is the likelihood that you will sell or terminate the lease on your car in the next three years?



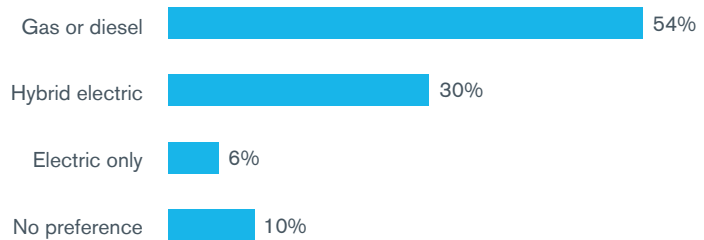
Q6. Which of the following are primary reasons for your decision to sell or terminate the lease on your car in the next three years?



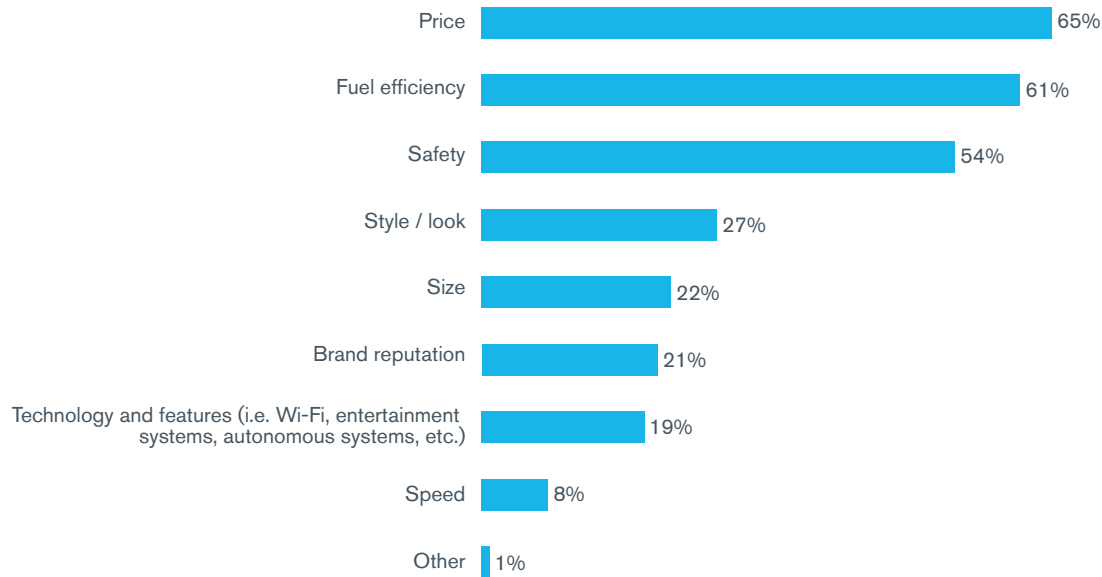
Q7. Are you likely to replace your car with another car?



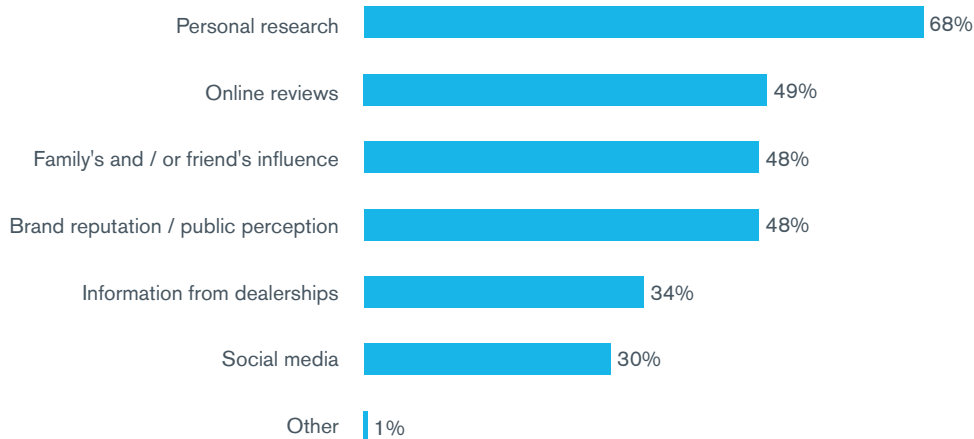
Q8. In considering a vehicle for purchase, which type of powertrain appeals most? Select one response.



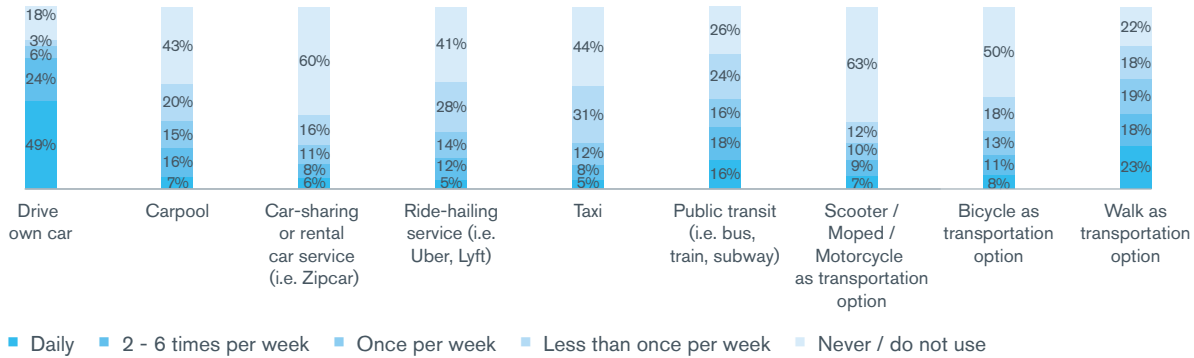
Q9. Indicate the top 1 - 3 most important features you look for in a vehicle.



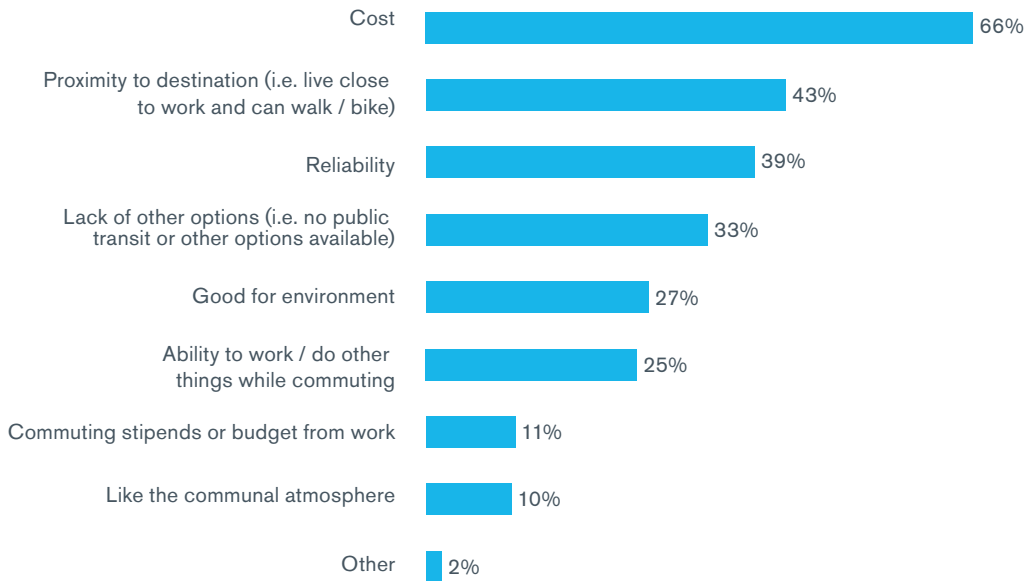
Q10. What is the most important source of information you would reference in the car-buying decision process?



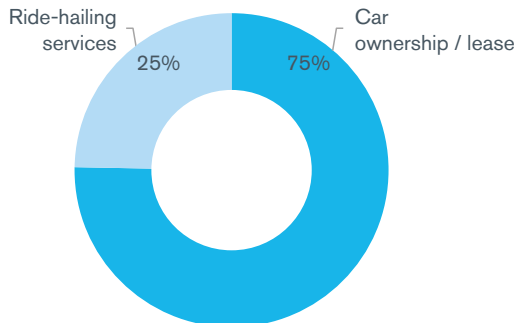
Q11. Please indicate the frequency with which you utilize each of the following transportation options:



Q12. Which of the following are the top reasons for your choice of transportation?



Q13. If ride-hailing services were available in your neighborhood and would cost the same as owning/leasing a car with insurance, which option would you prefer:



ABOUT DUFF & PHELPS

Duff & Phelps is the global advisor that protects, restores and maximizes value for clients in the areas of valuation, corporate finance, investigations, disputes, cyber security, compliance and regulatory matters, and other governance-related issues. We work with clients across diverse sectors, mitigating risk to assets, operations and people. With Kroll, a division of Duff & Phelps since 2018, our firm has nearly 3,500 professionals in 28 countries around the world. For more information, visit www.duffandphelps.com.

M&A advisory, capital raising and secondary market advisory services in the United States are provided by Duff & Phelps Securities, LLC. Member FINRA/SIPC. Pagemill Partners is a Division of Duff & Phelps Securities, LLC. M&A advisory, capital raising and secondary market advisory services in the United Kingdom are provided by Duff & Phelps Securities Ltd. (DPSL), which is authorized and regulated by the Financial Conduct Authority. M&A advisory, and capital raising services in Germany are provided by Duff & Phelps GmbH, which is a Tied Agent of DPSL. Valuation Advisory Services in India are provided by Duff & Phelps India Private Limited under a category 1 merchant banker license issued by the Securities and Exchange Board of India.