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Regulating Vehicles-for-Hire in Toronto

A REVIEW OF THE REGULATORY FRAMEWORKS

RYERSON URBAN ANALYTICS INSTITUTE -- JUNE 2019

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Executive Summary

This report presents a retrospective review of the regulatory frameworks for the Vehicles-For-Hire (VFH) industry in Toronto. The VFH industry is dominated by two types of service providers, namely taxicabs and Private Transportation Companies (PTCs), such as Uber and Lyft. Other VFH services include Limousine operators. Whereas the City has regulated the taxicab industry over a more extended period, the recent emergence of PTCs has made it necessary for regulators to bring PTC operations under municipal purview.

The 2006 City of Toronto Act defines the operating parameters for the municipal government. The Act enables municipal authorities to devise rules and regulations to facilitate the lives and livelihoods of those who live, visit, and work in the City of Toronto.

The report identifies specific sections of the Act, and other regulations and bylaws that empower the City to regulate businesses and facilitate residents. At the same time, the Act holds the municipal government responsible for maintaining and improving the welfare of all within the city boundaries.

The report then presents a detailed review of the Vehicle-For-Hire bylaw. The report presents a side-by-side comparison of regulations and bylaws for taxicabs and PTCs. The report uses 'PTC' to refer to companies like Uber and Lyft and at times uses 'VFH' to refer to taxicabs only. The italicized text in the document either represents verbatim quotations from source documents or to suggest emphasis.

Background

Private Transportation Companies first entered Canadian mobility markets in September 2012 with the launch of Uber in Toronto. In September 2014, UberX was launched in Toronto connecting riders and drivers of personal unmarked vehicles through a smartphone app. On December 12, 2017, Uber's biggest competitor, Lyft, began operating in Toronto.

The City of Toronto was concerned about the potential adverse effects of PTC-induced increases in congestion and tailpipe emissions, and other matters such as inadequate driver training and capability, and a lack of clarity about driver and vehicle insurance. The City sought a court injunction against Uber in November 2014 on the grounds that the company might endanger public safety by not adhering to established taxi regulations.

In July 2015, the Ontario Superior Court dismissed an injunction against Uber declaring the company had not broken any existing by-laws and was not required to follow the existing regulations.

The City of Toronto Council on May 3, 2016, voted 27-15 in favour of the new Vehicle-for-Hire by-law which introduced the Private Transportation Company class, effectively legalizing Uber and other PTCs in Toronto. The Vehicle-for-Hire by-law officially came into effect on July 15, 2016.

Findings

This report presents a retrospective review of the regulatory frameworks that have governed VFH operations since July 2016 in Toronto. The report first reviewed the City's stated goals and objectives for outcomes related to VFH operations and then evaluated whether the regulatory regimes either facilitated or impeded achieving those goals. The report focusses on the following impacts of VFH operations in Toronto.

1. Traffic congestion
2. Impact on public transit
3. Traffic safety
4. Accessibility for passengers with special needs
5. Environment
6. Driver rights in dispute resolution
7. Insurance implications
8. Application Fees
9. Worker/driver welfare

Traffic Congestion

Relying on the recently released analysis by the City of Toronto, this report concludes that PTCs are responsible for a significant increase in vehicular traffic in Toronto. Millions of additional trips resulting from PTC operations are contributing to an increase in traffic volumes and harmful tailpipe emissions. PTC trips are concentrated in morning and evening peak hours of traffic. Also, PTC trips are predominantly situated in the downtown core and the former municipality of East York.

The analysis by the City of Toronto revealed that PTC vehicles were making on average 176,000 trips every day in Toronto. Given the spatial and temporal concentration of trips in places and times of high travel demand, it is quite likely that the increase in the vehicular traffic is contributing to traffic congestion in the City of Toronto.

Whereas the number of taxicabs in Toronto is restricted to approximately 5,000, the estimated number of PTC licenses issued is approximately 70,000, with no cap specified in the regulations. While many other municipal policies and regulations are designed to discourage the reliance on the private automobile, permitting 70,000 additional vehicles to operate on Toronto streets does not conform to the stated objectives of reducing the City's reliance on the private automobile.

Given that numerous City policies are focused on reducing reliance on the private automobile, the current VFH regulatory frameworks have done little to curb the demand for travel by car.

Impact on public transit

A recently released report by the City of Toronto revealed that 49% of PTC passengers would have made the same trip by public transit in the absence of PTC services. This finding suggests that PTC operations are taking trips away from public transit in Toronto. This report estimates that the increase in PTC trips is likely to have shifted more than 20 million annual trips from public transit. Transit ridership losses will also result in a significant loss of revenue for transit authorities.

The City of Toronto, Metrolinx, the Province of Ontario, and the federal government have invested billions of dollars in improving and expanding public transit operations and service in Toronto. Various City and provincial policies and planning regulations are designed to reduce travel by automobiles and increase travel by public transit. VFH regulations, however, have not been successful in supporting the stated objectives for improving public transit mode share. Instead, the reports commissioned by the City suggest that a significant number of trips, which would have been made by public transit, end up on PTC vehicles.

Traffic safety

The report finds that the differences in regulation between taxicabs and PTCs have significant implications for safety. The existing regulations require three years of driving record to apply for driving a taxicab, but only a one-year record for operating a PTC affiliated vehicle. The bylaw does not explain why a longer driving safety record is required for taxicab drivers than for PTC drivers. The report notes that the recently proposed revisions by the City staff recommends a three-year record for PTC drivers as well.

The differences in regulations suggest that PTC drivers could be as young as 18 years old. However, given that taxicab drivers are required to obtain commercial insurance, insurance companies in Ontario are unlikely to provide commercial insurance to drivers under the age of 25. Thus, taxicab drivers are more likely to be 25 years or older.

For taxicabs, driver screening records are collected by the City of Toronto. For PTC drivers, however, the records are compiled by the PTC and may be made available for auditing by the City of Toronto. Furthermore, taxicab drivers must personally apply and pay for a criminal background check through the local police service and take an original copy of the record to the licensing authority. By contrast, PTC drivers' criminal background checks are completed by third-party private companies and are not provided to or by the driver who is the subject of the check.

The regulations require taxicabs to be equipped with cameras for the safety of passengers. PTC vehicles are exempted. Although the provision of cameras is a large overhead for taxicab operators, at an estimated cost of $1,000, the measure is necessary to enhance passenger and driver safety. In case of a dispute or an assault, the absence of cameras in PTC vehicles will result in compromising the safety of both the driver and passengers.

Accessibility for passengers with special needs

The taxicab industry in Toronto has made a concerted effort to provide wheelchair accessible taxis. At present, 680 wheelchair accessible taxicabs are operating comprising roughly 13% of the entire taxicabs fleet in Toronto.

The compliance with accessibility regulations for passengers with special needs varies for PTCs. In Toronto, PTCs have outsourced accessible services to other operators. The regulations require PTC operators to provide accessible transportation to passengers such that the wait time does not exceed the average wait time for regular passengers and the trip must not cost more than the price of a regular comparable trip. Lyft might require passengers with special needs to book the trip 24 hours in advance. In instances where it cannot provide service, Lyft may send a text message advising the passenger about other accessible services. Uber has partnered with Dignity Transportation in Toronto, which offers a fleet of accessible vehicles and trained drivers. Uber calls its accessible service uberWAV. Unlike PTC vehicle drivers, taxicab drivers are required to take a refresher course for accessible vehicle training once every four years.

Environment

As stated earlier, the significant increase in PTC trips in congested parts of the city during peak demand hours is likely to generate additional GHG emissions. Interestingly, PTC vehicles are not required to be lower emission vehicles. In comparison, taxicabs are required to be either accessible vehicles for passengers with special needs, or they must be alternative fuel, hybrid, or low-emission vehicles.

Current regulations impose fuel efficiency and emission standards on taxicabs, but not on the 70,000 estimated PTC vehicles in Toronto. Given that the stated objective of numerous municipal policies and regulations is to reduce GHG emissions, it is not apparent why PTC vehicles have been exempted from the requirements for fuel efficiency and emissions.

The report notes that the City staff has recently recommended to remove low-emission vehicle requirement for taxicabs and in its place has recommended an incentive program.

Driver rights in dispute resolution

In case of a dispute, taxicab drivers have access to an open process for determining whether a licence should be suspended or revoked. The driver faces a tribunal of appointed individuals who examine the case and hearings are open to the public. Hearings are also documented and available for review by the public.

PTC drivers have no recourse in case of a dispute. For instance, if the City wants to suspend or revoke a PTC licence, it may contact the PTC and order the company to remove the driver from the platform. In doing so, there is no requirement of a tribunal and no recourse for the PTC driver. This puts PTC drivers at a disadvantage. The regulation is not in line with the City's goal to ensure due process and job security. As a result, there is often no data being collected on PTC drivers and no information available to the public regarding incidents or outcomes.

Insurance implications

Taxicab drivers are required to obtain commercial insurance for $2 million. The insurance is always available whether a passenger is in the vehicle or otherwise. PTC vehicles are not required to be covered 24 hours a day. Uber vehicles, for example, are only insured commercially at the required minimum of $2 million while completing trips, during which they are carrying passengers. While deadheading or waiting for requests between trips, vehicles have a commercial insurance coverage of $1 million and are not covered at all when not on the Uber platform.

Ad hoc commercial insurance coverage could drive up the cost of insurance in the general market. This is because, in the event of an accident involving a PTC vehicle during a PTC trip, there is no fool-proof method of ensuring an accident is covered by commercial insurance as opposed to the driver's private insurance since PTC vehicles can fluidly switch between operating as PTC vehicles and as personal vehicles.

Application Fees

Taxicab drivers must pay $130 as an application fee. Also, taxicab drivers are required to pay $130 for renewal. In comparison, PTC drivers are required to pay $15 each for application and renewal fees.

Worker/driver welfare

In its Official Plan, the City of Toronto has outlined a vision to create a competitive and robust economy with a vital downtown that creates and sustains well-paid stable, safe and fulfilling employment opportunities for all Torontonians. It is important that all Torontonians, including PTC and taxicab drivers, should have the opportunity to earn living wages. Anecdotal evidence to date suggests that the proliferation of PTC vehicles has adversely affected the revenue potential for taxicab drivers. Studies commissioned by the City of Toronto revealed that 33% of the passengers who travelled by PTC would have taken the same trip by a taxicab. At the same time, with tens of thousands of PTC drivers

competing for a finite demand for the vehicle-for-hire services, the total revenue is distributed over many drivers, resulting in lower average revenue for individual PTC drivers.

While this report was being finalized, the City of Toronto has put forward new recommendations to amend the City of Toronto Municipal Code Chapter 546. If enacted, these recommendations will come into force on January 1, 2020, as recommended in the City's June 21, 2019 report on the *Review of the City of Toronto Municipal Code, Chapter 546, Licensing of Vehicles-for-Hire.* Some of the new recommendations made in the June 21, 2019 report include provisions affecting certain safety and environmental issues discussed in this report. These recommendations are yet to undergo the necessary review by the City of Toronto General Government and Licensing Committee and City Council.

Recommendations

This report recommends that the City of Toronto should eliminate discrepancies in regulations that may adversely impact one set of operators while benefiting another. Regulations must be streamlined to improve the well-being of drivers, operators, owners, and, more importantly, passengers.

This report recommends that vehicle-for-hire regulations should be revised so that the stated policies and priorities for reducing traffic congestion and harmful tailpipe emissions, improving public transit ridership and traffic safety, and improving accessibility for passengers with special needs can achieve their intended goals. Furthermore, given the stated goal to provide fulfilling employment opportunities for all Torontonians, it is incumbent that the City should continue to observe the impact of PTC operations on the welfare of drivers and others involved in the vehicle-for-hire industry.

The proliferation of PTCs will have many other impacts on the City of Toronto. A recent report completed by the Ryerson Urban Analytics Institute addressed the impacts that key trends will have on parking and suggested that the City undertake a review of parking standards. The current requirements per condominium unit might be high where residents have many other options such as ride-hailing, taxis, transit, biking and walking (or combinations thereof).

Lastly, this report endorses the recent recommendations by the City Staff for improving mobility in the City of Toronto. The City staff recommended:

1. "Transportation Services [at the City of Toronto] to build a monitoring program as part of the Congestion Management Plan to monitor the impacts of Vehicles-for-Hire on VKT, traffic congestion and GHG emissions and to better-understand the relationship with traffic congestion trends in the city.
2. "Transportation Services to continue to study the impact of Vehicles-for-Hire on the Curbside Management plan and related policies.
3. "Transportation Services to investigate whether there is a road safety impact of Vehicles-for-Hire and to collaborate with MLS and the Toronto Police Service to collect appropriate data.
4. "In order to be able to continuously monitor and evaluate the impact of vehicles-for-hire on the transportation network, changes are required to the data currently being collected to include information on PTC volumes, wait times, trip cancelations, deadheading and curbside activity."

Introduction

Our quality of life depends on transportation

Urban transportation infrastructure and services are critical to a city's economy and to the quality of life of its residents. Well-planned infrastructure enables access to employment, health and other services, education, recreation and other amenities. Therefore, transport infrastructure and services directly or indirectly impact livelihoods, health, leisure, and the overall wellbeing of citizens. This access to employment, health, education, and other amenities and services is a key driver of density in cities. Cities also offer a greater concentration of employment opportunities, economic prospects, health and social services, education, cultural and recreational amenities than suburbs or rural settlements.

Cities strive to provide reliable, diverse, and equitable transportation services. Without reliability in travel times, or in the absence of frequent and reliable public transit, economic productivity and social wellbeing can be compromised. The transportation of people, goods and services depends on reliability. Diversity is an important factor because transportation needs are dynamic and transportation services need to offer a range of options. Various kinds of workers, including freelance, part-time, and night shift workers need to be able to access transportation at off-peak times of the day. Related to this, equity is important because people with a range of disabilities and income levels should be able to access transportation services easily. If this does not happen, they are excluded from economic opportunity, as well as social and health services.

Transportation innovation

Cities across the globe have seen their transportation systems impacted by the rise of a new kind of transportation service -- private companies providing convenient on-demand Vehicle-for-Hire services using platform technology. These services are commonly known as ridesharing because the transportation services are contracted out to private individuals using private vehicles. Ridesharing has many utilities for users including convenience and competitive prices. In addition to this, ridesharing creates jobs for individuals without the barriers to entry that are typically faced in more regulated businesses that provide similar services such as taxicab businesses.

However, the real impacts of Private Transportation Companies (PTCs) are not fully understood partly due to their relatively recent appearance on the transportation scene, and due to tight restrictions on data sharing on the part of PTCs. Notably, the City of San Francisco went to court and recently succeeded in making some headway with accessing PTC data.[1] San Francisco's success in this regard, however, is not very meaningful for planning purposes because data access is limited to the city's attorney staff. Researchers are only beginning to assess the ways in which PTCs are creating challenges for cities striving to provide reliable, diverse and equitable transportation. Some of these challenges include congestion, transit reliability, and job security.

The role of municipal policy makers

Municipal governments are entrusted to enhance the livelihood and quality of life of their constituents. This means creating, implementing and enforcing policies that improve the viability of the economy, strengthen job security, improve access for people with disabilities, ensure that the economy works equitably, without excluding seniors, immigrants, low-income earners or other disenfranchised groups, and policies that protect the environment and safeguard lives and property.

Municipal governments have the power to affect supply and demand for various economic activities. They regulate the number of businesses by instituting caps and enforcing barriers to entry. They can directly influence the cost of production through subsidies, fees, and by enforcing certain operational requirements. Municipal governments have far-reaching influence on the outcomes of cities and on the lives of their constituents. To this end, it is crucial that they are informed and proactive.

The history of the entry of PTCs into many cities internationally shows that municipal governments were caught off guard and not well-positioned to influence PTC operations such that the benefits accrued could be maximized while controlling and minimizing the negative externalities.[2] Much of this is currently being borne out in court proceedings and on the streets as protests in cities globally. In reaction to the entry of PTCs into the transportation service industries of various cities, municipal governments have instituted reactionary policies to regulate them. Some of these policies may help to ensure that PTCs come in line with the goals and responsibilities of municipal governments to their constituents, and it is the objective of this report to assess such policies. Cities can be very influential in determining the outcomes of PTC operations because a very substantial portion of the operations of PTCs are in large cities and as such PTCs are financially dependent on travel demand generated in large cities.[3]

This report evaluates municipal policies for safeguarding the economy, the environment and the lives and livelihoods of people. This study reviews the current and potential impacts of the discrepancies between municipal policy regulating the transportation industry, specifically the Vehicle-for-Hire transportation industry. Policy discrepancies are necessary, since businesses have different business models which may need unique considerations to be viable. The more important question however, is *how well do the policies align with the municipal government's vision and goals for enhancing and safeguarding the lives and livelihoods of its constituents?*

One way to answer this question is to evaluate the policy outcomes. Another way to answer this question is to compare new policies with older ones and determine which set of policies serves the goal of safeguarding public's well-being better and meet the municipality's stated goals. This common-sense approach is based on the premise that policies, defined as a set of ideas or a plan that has been agreed to officially by a group of people, a business organization, a government, or a political party,[4] can be designed to directly address a need, by being the logical outcome of an established vision or goal. For example, in most cities, pollution is a problem and there is a need to reduce atmospheric pollutants. In response to this, many cities adopt policies that are aimed at reducing emissions from the most common sources of atmospheric pollution including manufacturing plants and automobile traffic. An example of such a policy is Toronto's requirement that taxicab vehicles be either accessible or be one of three established options for low-emissions vehicles.

The following section discusses the role of the municipal government, with a focus on its responsibility to improve and safeguard the public's well-being, and a discussion of the history of the City's regulation of PTCs.

Municipal Regulatory Policy

Municipal policy is created, implemented and enforced by municipal governments. In Ontario, municipal government powers are defined by individual municipal acts. The City of Toronto municipal government powers are currently defined by the 2006 City of Toronto Act, and include such responsibilities as water treatment and sewers, parks and recreation centers, libraries, garbage collection, public transit, land use planning, traffic and parking, police and fire services and more.[5]

The purpose of the creation, implementation, and enforcement of municipal policy is to ensure the well-being of the public. This overall goal of ensuring the public's well-being is reflected in the Ontario Municipal Act, 2001, which establishes that it is the role of Council:

> ***(a) to represent the public and to consider the well-being and interests of the municipality;***
>
> ***(b) to develop and evaluate the policies and programs of the municipality;***
>
> ***(c) to determine which services the municipality provides;***
>
> ***(d) to ensure that administrative policies, practices and procedures and controllership policies, practices and procedures are in place to implement the decisions of council;***
>
> ***(d.1) to ensure the accountability and transparency of the operations of the municipality, including the activities of the senior management of the municipality;***
>
> ***(e) to maintain the financial integrity of the municipality***

It is therefore the role of municipal officers and employees to partner with members of the public to create policies that ensure the public's well-being. In the City of Toronto, legislative and administrative powers are exercised by Council, which is considered the governing body of the municipality[6] and is comprised of the mayor and 25 councillors. Decisions affecting the City of Toronto are generally introduced at a committee level before going to Council for a final vote (see Appendix for a detailed description of committee responsibilities and committee structure). This includes the regulations that govern Toronto's Vehicle-for-Hire industry.

Public Participation in Toronto's Decision-Making Process

Toronto residents also play an essential role in the City's decision-making process. They can provide feedback on services, programs, and policies to City staff, councillors, and the mayor. Residents can also participate in public meetings, surveys, and advisory boards. Members of the public can register in advance to speak to a committee or community council for up to five minutes. Citizens can also submit written comments at meetings or via mail, email, or fax. Members of the public cannot speak at Council, except under special circumstances.[7] The City of Toronto Official Plan has provided guidelines for public involvement in the planning process in accordance with The Planning Act. These guidelines are detailed in the Appendix.

Toronto residents, including participants in the Vehicle-for-Hire industry, concerned about safety, economic, environmental, and other issues arising from PTC and taxicab operations, have been actively watching how policies have changed over time. The following is a discussion of the history of regulation in the Vehicle-for-Industry of Toronto.

History of Toronto's Regulation of PTCs

Private Transportation Companies first entered Canada in September 2012 with the launch of Uber in Toronto.[8] At the time, Uber operated as an unlicensed dispatcher of limousines and taxis asserting that the firm was a technology company and was not required to adhere to municipal ground transportation regulations.[9] The City of Toronto soon charged Uber with 25 municipal licensing offences based on a prior vote that Uber was in fact a taxi company and should be regulated as such. The offences therefore included operating as an unlicensed taxi brokerage and limo service.[10]

By identifying themselves as a technology company rather than a transportation company, Uber operated in a legal grey area exempt from taxi laws and regulations. Uber also maintained that their drivers were not employees but independent contractors, which allowed the firm to evade costly worker protections and benefits.[11] Uber's skirting of taxi industry regulations and employer responsibilities resulted in a strained relationship between the company and the City of Toronto.

In September 2014, UberX was launched in Toronto connecting riders and drivers of personal unmarked vehicles through a smartphone app.[12] The City was concerned about the potential negative effects of Uber-induced increased congestion and tailpipe emissions, and other matters such as inadequate driver training and capability, and a lack of clarity about driver and vehicle insurance. The City soon sought a court injunction against Uber in November 2014 on the grounds that the company was endangering public safety by not adhering to established taxi regulations. In July 2015, the Ontario Superior Court dismissed the injunction against Uber deciding that the company had not broken any existing by-laws and were not required to follow city taxi regulations based on the finding their business model was not within the established bounds of the definitions of a *taxicab brokerage* or a *limousine service company*.[13] Around this time, public support for Uber was growing. Mayor John Tory declared that companies like Uber were 'here to stay'.[14]

In March 2016, Council debated whether the City of Toronto should legalize Uber. A staff report recommended that regulations for taxis and limousines should be relaxed while introducing regulations for a new class of Private Transportation Companies, which included Uber.[15] The new regulations would require Private Transportation Companies to pay licensing fees, adhere to vehicle standards, and screen drivers. On May 3, 2016 Council voted 27-15 in favour of the new Vehicle-for-Hire by-law which introduced the private transportation company class, effectively legalizing Uber in Toronto.[16] The Vehicle-for-Hire by-law officially came into effect on July 15, 2016.[17] On December 12, 2017 Uber's biggest competitor, Lyft, began operating in Toronto.[18]

The evolution of PTC regulation in Toronto indicates that the position of City Council on PTC operation has not always been what it is now. While PTCs now operate legally in Toronto, their operation was very much opposed by City Council in the first few years of their entry before the 2015 dismissal of the court injunction against Uber.[19]

The future of the role and impact of PTCs in Toronto is still to be determined. Toronto's City Council is presently undertaking a review of the Vehicle-for-Hire industry and the current by-laws governing the industry are set to be amended yet again. One factor that will be important to determining a viable future for the City of Toronto is the degree to which the policies governing the Vehicle-for-Hire industry align with Toronto's vision and goals for public well-being and the viability of the city. The next sections discuss the City's instituted policies in keeping with the established vision and goals to promote well-

being of the public. The discussions will center on elements of Toronto's Vehicle-for-Hire industry, including taxicabs and Private Transportation Companies. Table 18 of the Appendix details the definitions of these elements as specified in the Toronto Municipal Code Chapter 546.

Transportation

The City of Toronto's Official Plan describes a vision of creating an attractive and safe city, where people can enjoy a good quality of life.[20] Transportation is an important factor that bears on quality of life since people must get around for work, recreation, and other purposes. This chapter assesses the City's goals and objectives for road transportation with a focus on congestion and public transit because it is key to a balanced, equitable, and multi-modal transportation system. It further assesses the impacts of PTC operation, and the policies governing such operations, to assess their alignment with the City's established vision and goals for transportation.

The City's vision and goals for congestion management

Traffic congestion is an important consideration for the City of Toronto, with an estimated annual cost of $3.3 billion from delay and vehicle operating cost. It is also estimated that an additional $2.7 billion is lost as economic output and job loss.[21] This report seeks to understand the City's vision/goal for congestion management, and assess its policies for the wider Vehicle-for-Hire industry, and more specifically its policies for Private Transportation Companies. The purpose is to gain an understanding of how these policies align with the wider goal of efficient transportation through congestion management.

The City's Official Plan has identified the goal of *implementing Travel Demand Management measures to reduce automobile dependence and rush-hour congestion in road networks.*[22] In response to the City's congestion problems, the City of Toronto has put together a Congestion Management Plan to manage congestion and improve road safety.[23] Under this plan, the City has undertaken a number of capital investments towards the achievement of this goal, estimated at about $57.25 million. This plan was adopted by the City of Toronto on December 16, 2013.[24] The 2014-2018 Congestion Management Plan was later revised and updated to the 2016-2020 Congestion Management Plan, which was endorsed in November 2015.[25]

The Objectives

Some of the 2014-2018 Congestion Management Plan objectives most directly related to road traffic congestion include: increasing throughput, reducing delays, reducing travel time variability, and reducing the duration of traffic incidents and events through decreases in detection, response and clearance times. Some recommended projects and activities from the 2014-2018 Congestion Management Plan that are most directly linked with the above listed objectives include: using Intelligent Transportation Systems technology to monitor traffic and maintain adequate throughput, conducting congestion studies, instituting programs like *Steer It-Clear It,* monitoring and managing construction work zone performance, developing curbside parking strategies, supporting multi-modal transportation, providing timely and accurate travel time and other traveler information, and centralizing traffic operations.

The 2016-2018 Congestion Management Plan (CMP) Objectives most directly related to road traffic congestion include:

- Documenting and taking advantage of the lessons learned during the execution and deployment of initiatives originally contemplated in the CMP 2014-2018
- Taking a more proactive approach to traffic management on arterial roads, complementing current traffic management activities on city expressways
- Applying evolving technology to traffic and congestion management, from wireless communication to advanced sensors to social media
- Providing a "tool kit" from which activities can be chosen and applied to the unique road contexts around Toronto
- Placing an emphasis on forward-thinking technologies, such as Connected Vehicle readiness and Big Data analysis
- Ensuring existing and new transportation infrastructure is resilient in the event of emergencies such as flooding and power failures
- Strengthening partnerships and information sharing, to improve efficiency and coordination of the City's transportation network
- Ensuring that all new systems and procedures are adequately supported operationally

The 2016-2018 Congestion Management Plan also adds the recommendation of *maintaining a state of good repair* to the 2014-2018 Congestion Management Plan projects and activities.

Completed and Planned Project Examples

The following is a list of sample projects and activities that have been completed or are currently underway to accomplish the stated objectives of the Congestion Management Plan.

Table 1: Sample of projects to improve mobility and flow

Date	Activity	Goal/Impact
2014	Installation of LED left-turn restriction signs	Improved by-law compliance Improved traffic flow
2015	Installation of 43 traffic cameras	Improved traffic monitoring and management
2016	Completion of several optimization studies	Reduction in travel time by 5% to 10%
2016	Incorporation of auxiliary signal timing plans	Reduction in travel time by 3% to 5%
2016	Installation of Steer It – Clear It signs	Reduction of delays caused by travel lane blockages
2016	Upgrade of communications infrastructure between Traffic Management Center and 229 field signal controllers	Improvement in reliability of traffic management
2016-2017	Update of traffic signal timings	Improvement of traffic flow and reduction in vehicles emissions, fuel consumptions, stops, and overall vehicle delay

Source: City of Toronto Congestion Management Plan 2014-2018

Based on the outlined vision/goal and objectives, and the implemented programs and projects under the 2014-2018 and 2016-2020 Congestion Management Plans, a major priority of the City's transportation policy is to mitigate traffic congestion. To this end, the City has invested millions of dollars into ongoing and completed projects to address the congestion problem.

Congestion Study

To manage congestion, an important starting point is the measurement and quantification of congestion. This is because evaluation is not possible without prior quantification of the problem. Furthermore, failure to quantify congestion risks wasting time and money because costly programs and projects that are to be implemented are not designed based on a rational, evidence-based, and measured approach. When this is the case, such programs and projects can be arbitrary or untargeted and their effectiveness is limited.

In the 2014-2018 CMP, the City planned to carry out several congestion studies, including corridor coordination studies, an active traffic management feasibility study, and an integrated corridor management feasibility study. To date, the City has completed several signal timing optimization studies, and a downtown transportation operations study targeted at curbside management.

In June 2019, the City released a new set of reports that analyzed traffic, economic, and other impacts of PTC operations in Toronto.

Recent transportation developments, including the entry of PTCs, could be a significant factor in traffic congestion and corresponding travel time increases. Several North American cities including New York City and San Francisco have determined that PTC operations have been a significant factor in increased traffic congestion.[26] In San Francisco, a congestion study found that between 2010 and 2016, average AM peak arterial travel speeds decreased by 26% and PM peak arterial speeds decreased by 27%.[27] Vehicle hours of delay, which is a measure of the total amount of excess time spent in congestion by the aggregate of vehicles, increased by 40,000 hours for the average weekday. The study attributed much of this to the entry of PTC vehicles into the market.

A similar study carried out for New York City found that travel speeds reduced by about 20% from 2010, with PTC vehicles playing a significant role.[28] The significant contribution of PTCs to congestion could also be true for Toronto, where PTCs make up a substantial portion of automobile trips. Earlier estimates put daily Uber trips in Toronto at 45,000.[29] In addition, Statistics Canada estimates that in 2016, 14.8% of Toronto residents used ride-hailing services.[30]

In June 2019, the City of Toronto as released a series of reports to study the impact of PTCs. One of the reports focuses particularly on transportation impacts. The research was done in collaboration with the University of Toronto Transportation Research Institute (UTTRI).[31] Based on the trip data reported by the PTCs, the City report documented the extent of PTC travel. The primary findings of the report are the following:

1. The average number of daily PTC trips in March 2019 was 176,000.
2. Since September 2016, PTC trips have increased by 180% in Toronto.
3. From its inception to March 2019, PTC have recorded 105 million trips in the City of Toronto.

4. When trips are broken down by location, 60% of the trips were recorded in the pre-amalgamated City of Toronto and East York.
5. The busiest time for PTC trips is usually Friday and Saturday evenings.
6. On weekdays, PTCs are mostly used during morning and afternoon peak periods.
7. PTCs account for five to 11 percent of the total traffic in downtown core.

An unexpected finding of the City of Toronto's report suggested that despite a significant PTC induced increase in motorization in the downtown core, the City estimated a modest increase of just four percent in morning peak hour travel time in March 2019 when compared with travel times in October 2017. Furthermore, the report notes a slight decline of one percent in evening peak period travel times. With such a large increase in motorized travel on congested downtown arterials, the lack of a commensurate increase in travel times is contrary to what one would expect. Traffic engineering theory suggests that an increase in motorized travel demand on a fixed road network with no change in road capacity should result in higher travel times. It is recommended that alternate ways of determining changes in travel time be used to replicate the travel time findings.

Regulations affecting Congestion Management for the VFH industry

Prior to the entry of PTCs into the Vehicle-for-Hire industry, regulations for VFHs were largely uniform. There was not much need for differentiation in policies between the different available VFH services including limousines and taxicabs, because their business models and mode of operation are largely similar. The recent entry of Private Transportation Companies however, created the need to either prohibit their operation, a strategy taken by numerous cities including Vancouver, or to create new policies governing their operation as in the case of Toronto, because older policies were found to be inadequate to the business model and mode of operation of PTCs as was the finding by the Ontario Superior Court of Justice.[32] To this end, it is important to assess the implications of inconsistencies between policies governing PTCs and other VFH services, particularly taxicabs, in order to understand how well new policies align with the City's overall vision/goal for transportation efficiency and in particular, congestion management. The relevant policies include regulations affecting movement and the quantity of vehicles in operation, since these areas are most directly linked to traffic flow and congestion. The following is a comparison of the policies regulating the volume of VFH business operations.

Table 2: Specification for maximum number of VFH vehicles

	PTCs	**Taxicabs**
Quantity	no cap	~ 5,000[33]

Source: City of Toronto Municipal Code Chapter 546

Quantity of vehicles in operation

Since the beginning of taxicab operations in Toronto, the quantity of such licenses has been regulated. As of 2013, there were about 4,489 taxicabs in operation.[34] The number of permitted vehicles in the past was determined by demand, specifically passenger wait times.[35] Presumably, the City continues to limit the number of taxicab vehicles operation as indicated by a waitlist.[36,37] The City has described this strategy as important to "*create an accessible, fair and sustainable industry that is viable for participants*

and delivers a high level of customer service". The number of taxicabs in operation in Toronto is currently estimated at about 5,000.[38]

The number of Uber and Lyft vehicles in operation, while unknown, can be estimated as the number of issued PTC licenses. This is because each PTC driver is required to be licensed, and each one uses their personal vehicle, meaning that unlike the case of taxicab owner licences which are different from taxicab driver licences, each PTC license does not only represent a PTC driver, but a PTC vehicle. The number of PTC licenses issued by the City of Toronto was estimated at about 70,000 in 2018.[39]

While the provision of Vehicle-for-Hire services has been pegged to available demand, the recent entry of about 70,000 PTC vehicles into the Vehicle-for-Hire industry raises the question of what is the rationale of the current supply of transportation services vehicles.

The rationale to limit the supply of VFH industry vehicles is based on several important factors. One key objective is to avoid a level of supply that would put roads and highways at capacity, thereby reducing vehicle throughput and causing congestion. This policy discrepancy between the quantity of taxicab vehicles in operation, and the quantity of PTC vehicles in operation therefore adversely impacts the City's goal of maintaining transportation efficiency and managing congestion. With studies singling out Toronto for high levels of traffic congestion, increased motorization is a critical issue for Toronto, and could be responsible for losses in productivity and substantially reducing the quality of life of people living and working in and around Toronto.[40]

The City's vision and goals for transit

The Official Plan describes several goals for transit services. First is the goal of creating a city with a *comprehensive and high quality affordable transit system that lets people move around quickly and conveniently,* among other goals directly tied to quality of life, including ease of accessing cultural facilities, green spaces, and a vital downtown with well paid, stable, safe, and fulfilling employment opportunities.[41] The Official Plan also asserts that the region is in crucial need of an integrated regional transportation system with direct, transfer-free, inter-regional transit, as well as road and rail networks that move goods efficiently. The plan has outlined the following specific policies with respect to road transportation and transit:

- ***Reduce auto-dependency and improve air quality***
- ***Increase the efficiency and safety of road and rail freight networks***

The Official Plan discusses a wide range of other policies to improve transit.[42]

The Objectives:

Stemming from these policies are various objectives identified by Toronto's public transit agency. Public transit in the Toronto region is provided by the Toronto Transit Commission (TTC) which provides services through a network of subways, light-rail, streetcars and buses,[43] as well as through regional rail provided by Metrolinx. In 2018, the TTC Board approved the 2018-2022 TTC Corporate Plan which identifies five major goals in providing transit services. They include:

- ***Transforming for financial sustainability***
- ***Enabling TTC employees to succeed***
- ***Moving customers more reliably***
- ***Making public transit seamless***

- ***Innovation***

The TTC Corporate Plan asserts that a viable Toronto depends on transit. Transit impacts road congestion, greenhouse gas emissions, equitable and inclusive access to services, employment, recreation, and culture.[44] To this end, the TTC has implemented and planned many programs and projects to accomplish its objectives of financial sustainability, employee development, service reliability, seamless transportation, and innovation, at a substantial level of investment. The TTC has funded a number of capital projects to maintain a state-of-good repair on vehicles, tracks, and other equipment, to improve service by increasing transit vehicle fleet, acquire new facilities, and make accessibility improvements to the tune of $6.5 billion for the period of 2018-2027.[45] The following are some examples of the TTC's completed and planned capital and other projects.

Completed and Planned Projects Examples

Table 3: A list of selected transit improvement projects

Date	Activity	Goal/Impact
2017 (opened)	Extension of Line 1 6 new accessible and wi-fi equipped stops	Improve direct transit connections between TTC, Go Transit and York Region Transit
2021 (underway)	New Eglinton Avenue light rail line	Improve transit access and connectivity
Underway	Acquisition of 700 new buses, 150 new streetcars and over 80 wheel-trans vehicles	Improve system capacity, increase service reliability

Source: TTC Corporate Plan

The 2018-2022 TTC Corporate Plan lays out a more comprehensive list of completed and planned projects, as well as its spending.[46]

Based on the outlined vision/goal and objectives, as well as the completed and planned programs and projects under the 2018-2022 TTC Corporate Plan, a major component of the City's transportation policy can be summarized as a policy to improve transit ridership, reliability, capacity, and services.

Transit Ridership in Toronto and the Impact of PTCs

The TTC Corporate plan asserts that *changes in transportation, including the rise of services like Uber and Lyft, are providing customers with more mobility options, greater control and a more seamless experience.* While this is true, some studies are finding that PTCs like Uber and Lyft are impacting transit ridership negatively by creating a substitutionary effect. This means that people who would otherwise use transit are making a modal shift to PTCs. As discussed earlier in this chapter, cities are experiencing significantly more congestion since the entry of PTCs, and while this could be as a result of induced trips, it could also be as a result of modal shift from transit.

A 2016 TTC Staff Report shows that TTC ridership has been falling since 2012 and that by 2015, it grew by less than 1%.[47] Based on ridership trends, the 2016 year-end passenger revenue shortfall was estimated at $25 million, leading to plans to cut spending on service additions and other non-labour related expenses.[48] While the presence of a connection between this trend and PTCs is unclear, many studies assessing the effect of PTCs on transit, carried out in other cities indicate that PTCs factor-in significantly. An example is a Boston study which found that about 40% of people who were surveyed

would have used public transportation if ridesharing was not available.[49] Ridesharing is also thought to be a factor in transit ridership decline in Toronto as stated in the 2016 TTC Staff Report.[50] The most direct evidence of the goal of PTCs to compete with transit is in Uber's IPO filing. About its vision for growth, it states that the company aims to *reach a scale that would compete with both personal vehicle ownership and transit*.[51] Uber's S-1 filings also categorically state the necessity of competing well with public transportation in order to grow.[52] It is arguable that this would in fact be necessary for the company to become profitable and fulfil its obligations to shareholders.

One study assessed transit ridership for the most recent ridership data covering the last 5 years and found that PTC entry decreases higher order transit ridership by 1.3%, and bus ridership by 1.7% for each year of PTC operation.[53] The study analyzed monthly transit ridership data for transit agencies in 22 cities and four modes including commuter rail, heavy rail, light rail and buses, including Philadelphia, Chicago, and Houston, all comparable to Toronto with populations of about 1.5 to 3 million. Several other studies corroborate these results.[54]

In collaboration with the University of Toronto's Transportation Research Institute, the City of Toronto conducted a survey of PTC riders in May 2019.[55] The survey revealed that 49% of PTC riders would have taken the same trip by public transit in the absence of PTCs. Another 33% PTC riders indicated that they would have made the trip using a taxicab. The remaining 18% would have completed the trip using other modes.

The latest analytics produced by the City of Toronto in collaboration with the University of Toronto provide evidence for a significant increase in trips made by automobiles. The report provides new evidence that PTCs have taken a very large number of trips away from public transit. The study found that almost half of the trips made by PTCs would have otherwise been made by public transit. PTC data revealed no fewer than 176,000 daily trips. These numbers indicate that PTCs are taking approximately 22 million trips [176,000 (daily PTC trips) x 0.49 (share of otherwise transit trips) x 250 (days in a year)] away from the TTC annually. This implies that PTC operations could be responsible for a loss in annual revenue of over $50 to $60 million to the TTC.

Safety

Moving people and goods quickly and efficiently is a key policy objective for municipalities. However, what is most important is getting people and goods to their destinations safely whether by road, train, bicycle, or foot. Improvements in street design, traffic law enforcement, and driver education can reduce the number and severity of accidents and collisions. Drivers, transit riders, cyclists, and pedestrians can also play their part in promoting safe transportation practices. This section outlines City of Toronto taxi and PTC by-laws and policies aimed at improving road safety and discusses any discrepancies that may undermine the well-being of citizens or the safety objectives of the City.

The City's Vision and Goals for Safety

According to the City of Toronto Act, Council can pass by-laws respecting the health, safety, and well-being of persons as well as the protection of persons and property, including consumer protection.[56] The City ensures that public safety and consumer protection are maintained in the taxi and PTC industries by regulating these businesses through Toronto Municipal Code Chapter 546. The safety of passengers is supported by regulation and enforcement of vehicle standards and driver screening by the City. The safety of drivers is supported by regulations mandating video surveillance and emergency lights for taxicabs, and detailed electronic record keeping for PTCs. Consumer protection in the VFH industry is supported by consistent service standards resulting from driver training, vehicle inspections, and accountability measures that ensure the City responds to customer complaints.[57]

The City of Toronto Act authorizes the City to provide a system of business licences and:

> ***(a) to prohibit the carrying on or engaging in the business without a licence;***
>
> ***(b) to refuse to grant a licence or to revoke or suspend a licence;***
>
> ***(c) to impose conditions as a requirement of obtaining, continuing to hold or renewing a licence;***
>
> ***(d) to impose special conditions on a business in a class that have not been imposed on all of the businesses in that class in order to obtain, continue to hold or renew a licence;***
>
> ***(e) to impose conditions, including special conditions, as a requirement of continuing to hold a licence at any time during the term of the licence; and***
>
> ***(f) to license, regulate or govern real and personal property used for the business and the persons carrying it on or engaged in it.***[58]

In addition, if the City believes that the continuation of a business poses an immediate danger to the health and safety of any person or property, it may suspend a business licence.[59] Licences therefore serve a gatekeeping function that prevent businesses that may pose a public safety or consumer protection risk from operating.

Completed and Planned Projects

The following is a list of completed and planned projects towards the goal of safety.

Table 4: List of selected safety improvement programs

Date	Activity	Goal/Impact
2016	Vision Zero Road Safety Plan	Reduce traffic-related deaths and injuries in the City of Toronto to zero
Underway	Automated Vehicles Tactical Plan	The City of Toronto will encourage the adoption of driving automation systems that are proven to create a net benefit to road safety and security

Regulations affecting safety

The following is a discussion of the City's regulation of the Vehicle-for-Hire industry to ensure that businesses operate safely, and to safeguard the lives and livelihoods of Toronto residents.

Licensing

The City of Toronto has the authority to licence businesses operating taxicabs and private transportation vehicles and impose conditions upon such licences. Toronto Municipal Code Chapter 546 requires that all taxicab, PTC, and Vehicle-for-Hire (VFH) owners, operators, and drivers obtain a licence from the Municipal Licensing & Standards (MLS) division. All licences issued are valid for one year and can be renewed.[60] Table 5 below provides an overview of taxicab and private transportation company licensing fees.

Table 5: Taxicab, Limousine, and Private Transportation Company Licensing Fees

Licence	Who Can Apply	Application Fee	Renewal Fee
Taxicab Owner[61]	Individuals, partnerships, or corporations	$984.16	$984.16
Taxicab Operator[62]	Individuals, partnerships, or corporations	$500	$300
Taxicab Brokerage[63]	Individuals, partnerships, or corporations	$411.06	$276.42
Private Transportation Company[64]	Individuals, partnerships, or corporations	$20,000	* Annual PTC fee per driver - $15 * PTC fee per trip - $0.30

Taxicab drivers can apply directly to the City for a Vehicle-for-Hire driver licence.[65] The City does not issue PTC driver's licences directly to individuals. Prospective PTC drivers must apply for a licence through a PTC who will apply on their behalf.[66] Table 6 provides an overview of Vehicle-for-Hire and Private Transportation Company driver licensing fees.

Table 6: Vehicle-for-Hire and Private Transportation Company Driver Licensing Fees

Licence	Who Can Apply	Application Fee	Renewal Fee
Vehicle-for-Hire Driver (Taxicab Driver)[67]	Individuals	$130	$130
Private Transportation Company Driver[68]	Individuals through a PTC	$15	$15

Vehicle-for-Hire and Private Transportation Company Driver Screening and Criminal Background Check

VFH and PTC drivers must meet rigorous screening requirements before being licenced by the City. Screening criteria must be reevaluated at least annually to retain possession of a licence.[69] Table 7 below summarizes screening criteria for VFH and PTC drivers.

Table 7: VFH and PTC Driver Screening Requirements

	VFH Drivers	PTC Drivers
Minimum Age[70]	18	18
Driver's Licence[71]	Unrestricted Class G or higher Ontario driver's licence	Unrestricted Class G or higher Ontario driver's licence
Driving Record Abstract[72]	3-year driving history recorded by the Ministry of Transportation	1-year driving history recorded by the Ministry of Transportation
Maximum Demerit Points[73]	8	8
Driver Screening Collection	Collected by City of Toronto	Collected by PTC and subject to audit by City of Toronto
Criminal Background Check Collection	Collected by City of Toronto	Collected by PTC and subject to audit by City of Toronto

A VFH or PTC driver will be denied application or renewal if they have been convicted of any of the following offences under the Highway Traffic Act in the preceding five years:

1. ***careless driving,***
2. ***racing or stunt driving,***
3. ***exceeding the speed limit by 50 km/hour or more***
4. ***failing to stop for a school bus or police officer***
5. ***failing to remain at the scene of a collision***
6. ***driving with a suspended licence***[74]

PTC drivers require a separate licence for each PTC that they drive for. For example, A PTC driver who drives for Uber and Lyft would require two separate licences, one for each company.

In addition to submitting a driving record abstract, VFH and PTC drivers must also undergo a criminal record and judicial matters check. Both VFH and PTC drivers will be denied their application or renewal of a licence if they have:

a) Been convicted at any time of a sexual offence against a minor or a person with a disability under any of sections 151 to 153.1 of the Criminal Code

b) Been convicted of any sexual offence under the Criminal Code in the preceding ten years

c) Been convicted of an offence under the following Criminal Code sections in the preceding five years:

> ***i. 84 to 117.15 (Firearms and Other Weapons)***
>
> ***ii. 264.1 to 286.1 (Offences Against the Person)***
>
> ***iii. 321 to 378 (Offences Against Rights of Property)***
>
> ***iv. 379 to 462 (Fraudulent Transactions, Willful and Forbidden Acts of Certain Property, Offences Relating to Currency)***
>
> ***v. 462.3 to 462.5 (Proceeds of Crime)***

d) Been convicted at any time of an offence under the following Criminal Code sections:

> ***i. 83.01 to 83.33 (Terrorism)***
>
> ***ii. 219 to 248 (Major Offences Against the Person)***
>
> ***iii. 267, 268, 270.01, 272, 273 (Major Assaults or Major Sexual Assaults)***

e) Been convicted of an offence under the following Controlled Drugs and Substances Act sections in the preceding ten years:

> ***i. 5 (Trafficking)***
>
> ***ii. 6 (Importing and exporting)***
>
> ***iii. 7 (Production)***
>
> ***iv. 7.1 (Possession for use in production or trafficking)***

f) Been convicted of any offence under section 4 (Possession or obtaining) of the Controlled Drugs and Substances Act in the preceding five years

g) Been convicted of five or more offences under Chapter 545 or 546 of the Toronto Municipal Code in the preceding three years

h) Any overdue by-law fines, unless the applicant provides proof that such fines have been subsequently paid.

i) Been convicted of any offence under sections 249, 252, or 253 of the Criminal Code (Motor Vehicles, Vessels, and Aircraft) in the preceding five years[75]

These screening criteria do not apply to any offence for which an applicant has been granted a pardon by the Parole Board of Canada.[76] If a VFH or PTC drivers fails to meet any of the screening criteria, their licence may be suspended or revoked by MLS.[77]

Vehicle Requirements

The City of Toronto promotes public safety by regulating VFH and PTC vehicle requirements. These include by-laws regarding vehicle age and seating capacity, mechanical inspections, condition of vehicles, and cameras. VFH and PTC vehicle requirements are summarized in Table 8.

Table 8: Taxicab and PTC Vehicle Requirements

	Taxicab	**PTC**
Age	No more than seven model years old	No more than seven model years old
Maximum Seating Capacity	Seven, plus driver	Seven, plus driver
Mechanical Inspections	Must pass a mechanical inspection and obtain a mechanical safety inspection certificate every 6 months if traveled more than 40,000 km in prior year	Must pass a mechanical inspection and obtain a mechanical safety inspection certificate if traveled more than 40,000 km in prior year
Cameras	Required	Not Required
Approved Models	Must be an accessible (D409 compliant), alternative fuel, hybrid, or low emission vehicle	Any four-door vehicle

Mechanical Inspections

Every taxicab and PTC vehicle must pass a mechanical inspection and obtain a mechanical safety inspection certificate. Every mechanical inspection shall be:

(1) Conducted by a designated mechanic at a City-operated inspection facility prior to providing transportation service and once every six months from then on; or

(2) Conducted at an inspection facility approved by the Executive Director to conduct vehicle inspections, in which case the vehicle shall pass inspections:

> ***(a) Prior to providing transportation service; and***
>
> ***(b) Once every six months if, on the annual licence renewal date, the vehicle has travelled 40,000 or more kilometres in the prior year; or***
>
> ***(c) Once every 12 months if, on the annual licence renewal date, the vehicle has travelled less than 40,000 kilometres in the prior year.***

3. The Executive Director may prescribe the form of report or certification to be used by a designated mechanic.

4. Any mechanical inspection certificate obtained to meet the requirements of Subsection B(2)(b) shall be provided to ML&S by the taxicab operator within seven business days.

5. Every owner of a taxicab or limousine and every taxicab operator shall immediately check any mechanical defect in his or her vehicle that is reported by a Vehicle-for-Hire driver.

6. A taxicab or limousine owner and a taxicab operator shall only operate, or permit to be operated, a taxicab or limousine vehicle that is in good mechanical condition.[78]

Vehicle Condition

In addition to the required mechanical inspections, taxicabs and PTC vehicles must be kept in good condition in accordance with Toronto Municipal Code 546. Table 9 summarizes vehicle condition standards for taxicab owners, taxicab operators, and PTC vehicles.

Table 9: Taxicab and PTC Vehicle Condition Standards

	Vehicle Condition Standards
Taxicab Owner	No owner shall permit their taxicab to be operated unless it is: ***(1) Equipped with an extra tire and wheel ready for use;*** ***(2) Clean and in good repair as to its exterior and interior;*** ***(3) Free from mechanical defects;*** ***(4) Equipped with seat belts plainly visible and accessible to passengers;*** ***(5) Equipped with fully functioning air-conditioning and heating systems; and*** ***(6) Equipped with four snow tires or all weather tires from December 1 to April 30***[79]
Taxicab Operator	A taxicab operator shall ensure that each taxicab is: ***(1) Free from mechanical defects;*** ***(2) Fully and properly equipped with all of the equipment, signage, and markings that a taxicab is required by the provisions of this chapter to have; and*** ***(3) Clean and in good repair as to its exterior and interior***[80]
PTC Vehicle	No PTC or PTC driver shall operate or permit the operation of a PTC vehicle unless that vehicle: ***(1) Has four doors;*** ***(2) Displays a PTC Identifier in a location approved by the Executive Director at all times when the vehicle is available to provide or is providing transportation to passengers;*** ***(3) Is equipped with snow tires or all-weather tires from December 1 to April 30; and*** ***(4) Has no roof light or markings that have the effect of making the vehicle look like a taxicab or identify it to any person as being available for hire.***[81]

Cameras

Toronto Municipal Code Chapter 546 defines a camera system as capable of recording images of persons in a taxicab, such that access to the images is limited to law enforcement personnel authorized by the Executive Director for law enforcement purposes only. Taxicab owners must provide and maintain a fully functioning camera system and a decal stating that passengers are being video recorded in each of their taxicabs. Cameras are not required in PTC vehicles.

Approved Vehicle-for-Hire Models

The City of Toronto provides a list of vehicle models that can operate as taxicabs. The most recently updated list at the time of writing includes 952 different models for taxicabs. The City of Toronto does not provide an exhaustive list of vehicle models that may operate as PTC vehicles. Table 10 summarizes approved taxicab and PTC vehicle models.

Table 10: Approved Taxicab and PTC Vehicle Models

	Approved Vehicle-for-Hire Models
Taxicab	Taxicabs can be any of the following four vehicle types: **Accessible vehicles** Any vehicle equipped to transport a person in a wheelchair that is D409 compliant. The vehicle can be factory-built or converted. **Alternative fuel vehicles** Any vehicle that runs on one fuel source other than regular gas. Examples are ethanol, bio-diesel, natural gas, hydrogen. **Hybrid vehicles** Any vehicle that runs on two or more fuel sources. Examples are gas/electric or gas/propane vehicles. **Low emission vehicles** A vehicle with lower emissions of greenhouse gas pollutants and smog pollutants than the average for that model year. For vehicles manufactured in and before Model Year 2014, a Combined Fuel Consumption Rating of 7 or fewer litres per 100 kilometres, and for vehicles manufactured in and after Model Year 2015, a Combined Fuel Consumption Rating currently estimated at 8.4 or fewer litres per 100 kilometres. [82,83]
PTC	Toronto Municipal Code 546 states that PTC vehicles must: ***(1) Have four doors;*** ***(2) Have a maximum seating capacity of seven passengers, plus the driver;*** ***(3) Be no more than seven model years old;*** ***(4) Display a PTC Identifier in a location approved by the Executive Director at all times when the vehicle is available to provide or is providing transportation to passengers;*** ***(5) Be equipped with snow tires or all-weather tires from December 1 to April 30; and*** ***(6) Have no roof light or markings that have the effect of making the vehicle look like a taxicab or identify it to any person as being available for hire.*** [84]

Vehicle-for-Hire Safety and the Public Interest

The City of Toronto has regulated the taxi industry for decades to ensure that taxi services are provided safely to the public. To fulfill this public interest role, regulators have created by-laws governing fares, insurance, vehicle inspections, service standards, and entry restrictions through limiting the number of taxi licences. Before Toronto Municipal Code Chapter 546 came into effect in July 2016, PTC vehicles and

their drivers were not subject to many of the safety and consumer protection measures that applied to taxis placing PTC drivers, passengers, and the general public at risk. The City initially attempted to ban PTCs in Toronto, citing public safety concerns by not adhering to taxi regulations. However, after the Ontario Superior Court dismissed the injunction in July 2015, the City sought to regulate PTCs instead. The City's decision to regulate PTCs in July 2016 was a step in the right direction towards the goal of enhancing public safety.

The City has adopted several regulations to PTCs that directly address public safety. These PTC regulations can be compared with similar regulations for taxicabs to determine whether any discrepancies might undermine overall public well-being. For decades, restrictions have been placed on the number of taxi licences available in the City. Conversely, the number of PTC licences in the City has risen dramatically and far outpaces the number of taxi licences. There are around 5,000 licenced taxicabs in the City of Toronto compared to around 70,000 licenced PTC drivers.[85] This raises concerns regarding increased traffic congestion and potential safety risks to drivers, passengers, and pedestrians. In August 2018, New York City Council capped the number of PTC licences at 80,000 in part to alleviate congestion and the associated safety risks. The current system of handing out PTC licences at an accelerated rate with no cap in sight will only exacerbate the congestion issue further with potential negative consequences for driver, passenger, and pedestrian safety. For example, Barrios, Hochberg & Yi (2018) examined the effect of PTCs in US cities on fatal traffic accidents. They found that PTCs were associated with an increase of two to three percent in the number of motor vehicle fatalities and fatal accidents and that this increase occurred for both vehicle occupants and pedestrians.[86]

Since PTC regulation came into effect in Toronto in July 2016, driver screening for taxi and PTC drivers is quite similar. Both sets of drivers must be at least 18 years of age, hold an unrestricted Class G of higher licence, and undergo a criminal record check with the same conditions. Further, taxi and PTC drivers will be denied licence application or renewal if they have accumulated nine or more demerit points or if they have been convicted of one or more of a list of offences under the Highway Traffic Act. However, there are several discrepancies involving the provision of driving abstracts. Taxi drivers must provide a driving record abstract with three years driving history, while PTC drivers must provide a driving record abstract with only one year of driving history. It is unclear why taxi drivers must provide more information than PTC drivers regarding past driving history as taxi drivers are generally older than PTC drivers and have more experience picking up, driving, and dropping off passengers.

One reason why taxi drivers tend to be older is the insurance requirement. While the City has instituted that the minimum age for taxi drivers is 18 years, in reality, it is 25 years as insurance companies in Ontario do not provide commercial insurance to people under the age of 25. One possible reason for the more stringent age restriction by insurance companies is safety. Studies show an association between younger drivers and higher crash frequency. It could therefore be argued that it is in the public's best interest to increase the driving record abstract requirement for PTC drivers to three years, if not more.

In addition, a prospective PTC driver coming from another country who cannot produce a driving abstract will, in many cases, still be issued a licence regardless. The province has guidelines suggesting that a driver who cannot reasonably obtain an abstract should not be held to such a requirement as enforcing this policy would unfairly keep them from obtaining work. City staff have indicated during recent public consultations that they often refer to provincial guidelines to justify handing out licences when a driving abstract cannot be provided. As a result, immigrant PTC drivers can often work quickly

upon entering the country while VFH drivers must go through a lengthier insurance process that requires documentation of previous commercial insurance and/or a letter detailing previous driver experience.

There are also discrepancies regarding criminal background checks for VFH and PTC drivers. VFH drivers must personally apply and pay for a criminal background check in person through the local police service and take an original copy of the check to the licensing body. By contrast, PTC drivers' criminal background checks are completed by third-party private companies and are not provided to or by the driver who is the subject of the check. Criminal background checks for VFH drivers are therefore more transparent than those for PTC drivers as they are administered directly by City police services and not through a third-party private company subject to audit by the City.

There is also a marked difference between suspending or revoking a VFH licence and a PTC licence. For VFH drivers there is a transparent and open process for determining whether a licence should be suspended or revoked. The driver is brought to a tribunal of appointed individuals who examine the case and hearings are open to the public. Hearings are also documented and available for review by the public. If the City wants to suspend or revoke a PTC licence, it will contact the PTC and order the company to remove the driver from the platform. In doing so, there is no requirement for tribunal and no recourse for the PTC driver. This puts PTC drivers at a disadvantage and is not in line the City's goal to ensure due process and job security (this point is discussed further in the report's section on Labour and the Economy). As a result, there is often no data being collected on PTC drivers and no information available to the public regarding incidents or outcomes.

Vehicle requirements such as age, seating capacity, mechanical inspections, and condition are similar for taxis and PTCs. However, one vehicle requirement that differs for taxis and PTCs is the use of video cameras. Taxis must have a fully functioning camera on board while cameras are not required in PTC vehicles. Cameras play a valuable role in taxi driver and passenger safety as they serve as a deterrent to violence and sexual harassment and provide evidence in court cases. PTCs argue that cameras are not necessary in their vehicles as their platforms have two-way rating systems, GPS tracking, and the design of the application reduces or eliminates anonymity. However, the issue with this argument is that in the absence of camera evidence, a dispute or altercation becomes a case of 'my word against yours'. Also, cameras have been shown to deter crime, while the lack of cameras in PTC vehicles means that crimes are dealt with after the fact. Mandating cameras in every PTC vehicle would further enhance driver and passenger safety but the cost may be too prohibitive for the City to implement and enforce.

At a Vehicle-for-Hire By-law Review public consultation, a by-law enforcement officer estimated the cost of a taxicab camera at approximately $1,000. The officer also stated that the police check taxi camera footage quite frequently.

In the City's June 21, 2019, report on the *Review of the City of Toronto Municipal Code, Chapter 546, Licensing of Vehicles-for-Hire,* there are recommendations for mandatory training for all Vehicle-for-Hire drivers (including PTCs), and the minimum required driving history for PTC drivers has been increased to three years. While these represent improvements that may increase safety, some recommendations raise further questions. One such recommendation is for the mechanical inspection requirement, which has been changed from every six months to every 12 months for all vehicles regardless of mileage. In addition to this, there are no recommendations that address other safety issues including the

requirement for safety cameras in taxicabs but not PTC vehicles, and the issue of criminal background screening for PTC vehicle drivers.

Accessibility

Municipal governments play an important role in providing accessible transportation options for people with disabilities and special needs. Mobility constraints can limit opportunities for many individuals, especially if proactive measures are not taken to remove barriers faced by people with disabilities. By contrast, when municipalities increase accessibility, all citizens, including those with disabilities and special needs, can actively participate in the economic, social, recreational, and cultural life of their city. This section assesses the City of Toronto's vision and goals for accessible transportation and evaluate how similarities and discrepancies in taxicab and PTC accessibility by-laws and policies support or weaken City objectives.

The City's Vision and Goals for Accessibility

The City of Toronto Official Plan states that 'our future is one where people with special needs are supported to live in their communities'.[87] In support of this goal, the Official Plan lists several policies regarding the transportation of people with disabilities. According to the Plan:

> ***The transportation system will be developed to be inclusive of the needs of people with disabilities and seniors by:***
>
> ***a) ensuring that new transit facilities and vehicles are accessible;***
>
> ***b) modifying existing transit stations to become accessible over time;***
>
> ***c) supplementing the conventional transit system with specialized services;***
>
> ***d) requiring a minimum of off-street parking spaces for the disabled; and***
>
> ***e) taking accessibility into account from the design stage onwards.***[88]

The Official Plan also states that:

> ***New and existing City streets will incorporate a Complete Streets approach and be designed to perform their diverse roles by:***
>
> ***a) balancing the needs and priorities of the various users and uses within the right-of-way, including provision for:***
>
> > ***i. the safe and efficient movement of pedestrians of all ages and abilities, cyclists, transit vehicles and users, goods and services vehicles, emergency vehicles, and motorists across the network;***
> >
> > ***ii. space for other street elements, such as utilities and services, trees and landscaping, green infrastructure, snow and stormwater management, wayfinding, boulevard cafes, marketing and vending, and street furniture; and***
> >
> > ***iii. ensuring the safety of vulnerable groups such as women, children, seniors and people with disabilities by implementing the Toronto Safer City Guidelines, or an updated version thereof;***
>
> ***b) improving the quality and convenience of active transportation options within all communities by giving full consideration to the needs of pedestrians, cyclists and public transit users;***[89]

The Accessibility for Ontarians with Disabilities Act, 2005 requires the City of Toronto to consult with the Toronto Accessibility Advisory Committee to determine the number of on-demand accessible taxicabs

required. The City must also ensure that owners and drivers are prohibited from charging a higher fare for people with disabilities or charging a fee for the storage of assistive devices.[90]

In 2014, Council advanced the goal that six percent of Toronto taxicabs would be wheelchair accessible ahead of the Pan Am and Para Pan Am Games. In support of this goal, 290 wheelchair accessible taxicab licences were issued to drivers who purchased accessible vehicles, underwent training, and became accessible taxicab owners.[91] The City has since surpassed the original six percent goal. Toronto has licenced 682 wheelchair accessible taxicabs, accounting for approximately 13% of the City's total taxicab fleet.[92]

Council has endorsed the goal of 'achieving an inclusive and accessible Vehicle-for-Hire industry that will ensure that all Toronto residents and visitors have equal access'. As part of the Vehicle-for-Hire By-law review, Council has directed MLS to proceed with an accessibility strategy. City staff have been directed to report on options such as the creating an accessibility fund, promoting side-entry accessible taxicabs, and creating a working group to advance accessible Vehicle-for-Hire service. The accessibility fund would be disbursed to owners and drivers to subsidize the higher cost of providing WAV service (see the definition under Uber below), such as conversion of vehicles and additional accessibility training. [93]

Completed and Planned Projects

The following are some examples of projects undertaken by the City towards the goal of increasing accessibility.

Table 11: List of initiatives to improve accessibility

Date	Activity	Goal/Effect
Underway	Multi-Year Accessibility Plan Update	Prevent and remove barriers, and meet requirements under the Standards of the Accessibility for Ontarians with Disabilities Act
2004	City of Toronto Accessibility Design Guidelines	Guides City staff when developing future policies, guidelines, standards and other initiatives that serve the needs of persons with disabilities

Regulations affecting accessibility

City of Toronto Accessible Vehicle Requirements

Toronto Municipal Code 546 defines an accessible vehicle as a motor vehicle equipped as a physically disabled passenger vehicle in accordance with R.R.O. 1990, Reg. 629, made under the Highway Traffic Act and the Canadian Standards Association CAN/CSA-D409-92 vehicle standards.[94,95,96] However, this report is not concerned with listing the design standards of an accessible vehicle. Rather, it is concerned with how City of Toronto accessible vehicle policy and practices differ with respect to taxicabs and PTC vehicles.

City of Toronto Accessible Vehicle Training Requirements

Accessible vehicle training requirements for VFH drivers, PTC drivers, and taxicab owners are listed in Table 12.

Table 12: Accessible Vehicle Training Requirements

	VFH Drivers	Taxicab Owners	PTC Drivers
Accessible Vehicle Training	Must complete an accessible vehicle training course Must complete, at least once every four consecutive years, an accessibility refresher training program	All prospective Toronto Taxicab Licence (TTL) holders must pass an accessible vehicle training course	Must take an approved WAV course (Uber)

Vehicle-for-Hire Drivers

Toronto Municipal Code 546 states that a VFH driver must complete an accessible vehicle training course prior to driving an accessible vehicle. In addition, a VFH driver operating an accessible vehicle must complete, at least once every four consecutive years, an accessibility refresher training program. The fees for these two courses have been waived by MLS. When VFH drivers serve passengers who request an accessible vehicle they must notify the passenger that they have arrived, provide appropriate assistance to the passenger when requested, and properly and safely handle customer mobility aides. [97]

Taxicab Owners

In the City of Toronto there are two ways to become a taxi owner. One is to purchase an existing Standard Taxi Licence or Toronto Taxicab Licence (TTL). The other is to be issued a new TTL after being added to a waiting list of drivers. To be added to the TTL waiting list an applicant must have been a full-time taxicab driver for the past three years and cannot have owned a taxicab in the past five years. All prospective TTL holders must pass an accessible vehicle training course. A person who fails the course once will retain their position on the TTL waiting list and may attend the next available course. However, a person who fails the course more than once or who does not re-attend the course will be struck from the waiting list.

In addition, the licence application and renewal fees for accessible taxicab licences, wheelchair accessible taxicab owners, and any taxicab owner whose taxicab is a D409 compliance wheelchair accessible vehicle are waived.[98]

Private Transportation Companies

Toronto Municipal Code 546 states that any PTC with more than 500 drivers licenced by MLS must provide wheelchair accessible service to the public. PTCs must ensure that wheelchair accessible vehicles requested through the PTC platform are available within the average wait time for non-accessible taxicab services (11 minutes). A PTC must also charge accessible vehicle fares that are the same or less than the fare charged by that PTC for its cheapest non-accessible service.[99]

Uber

In January 2016, Uber launched uberWAV, their wheelchair accessible vehicle option, in Toronto. Uber has partnered with Dignity Transportation, which offers a fleet of accessible vehicles and trained drivers, to help deliver uberWAV services.[100] All uberWAV vehicles can load and secure passengers using motorized wheelchairs and are equipped with ramps or lifts.[101]

Prospective uberWAV drivers must take an approved WAV course. Uber has partnered with Autzu to provide training, but drivers can also be trained by a recognized provider.[102] Drivers must comply with all municipal, provincial, and federal laws governing the transportation of passengers with disabilities. uberWAV drivers must also accommodate passengers with canes, walkers, folding wheelchairs, and other assistive devices. Report of unlawful discrimination on the part of the driver will result in the temporary deactivation of the driver's account while Uber reviews the incident. If the incident in question is confirmed as an illegal violation, the driver may lose permanent access to the Uber platform.[103]

Lyft

Lyft passengers can enable 'Access Mode' within the Lyft app and request a wheelchair accessible vehicle. In markets where wheelchair accessible vehicles are not available, information regarding local services will be sent via text message when the ride is requested.[104] Lyft does not provide their own wheelchair accessible vehicles, rather, they partner with local dispatches that provide services.

Accessible vehicles must often be booked at least 24 hours in advance. It is often necessary to complete an enrollment process before booking a ride with a local dispatch. This process can take several weeks depending upon the provider. In Toronto, accessible vehicles booked through Lyft are provided by GTA Accessible, City Taxi, and Co-Op Cabs.[105]

Lyft also provides a wheelchair policy on their website. It states that drivers should accommodate passengers whose wheelchair can safely and securely fit in the car's trunk or backseat without obstructing the driver's view. Wheelchair loading tips are listed for both foldable and rigid-frame wheelchairs. Instructions for transferring passengers safely are also provided. Drivers who refuse a ride to a passenger whose wheelchair could be reasonably accommodated may be removed from the Lyft platform. If a wheelchair cannot be accommodated the driver should cancel the ride.[106]

Vehicle-for-Hire Accessibility and the Public Interest

The City of Toronto, in their Statement of Commitment to Creating an Accessible City, affirms that they are:

> ***… committed to building an inclusive society and providing an accessible environment in which all individuals have access to the City's services and programs in a way that respects the dignity and independence of people with disabilities.***[107]

In working towards this goal, the City has adopted several by-laws, policies, and standards respecting the accessible transportation of people with disabilities by taxi and PTC vehicle. Accessibility regulations for taxis and PTCs are similar in some respects and different in others. This section will discuss these similarities and differences and whether any discrepancies between taxi and PTC accessibility regulations undermine the public interest.

Private Transportation Companies with more than 500 vehicles must provide wheelchair accessible service to the public and ensure that vehicles requested through their platform are available within 11 minutes, which is the average wait time for a non-accessible taxi. This is an admirable goal but one that is all too often unmet. Lyft, for example, does not provide their own wheelchair accessible vehicles in Toronto. Instead, they partner with local dispatches that provide accessible service. According to Lyft, wheelchair accessible vehicles must often be booked at least 24 hours in advance and the enrollment process before being able to book a ride can take several weeks. This is a far cry from the average 11-

minute wait time for a non-accessible taxi. Lyft states that they can accommodate passengers with foldable and rigid frame wheelchairs if the wheelchair can be safely and securely fit in the trunk or backseat of the vehicle without obstructing the driver's view. If the wheelchair cannot be accommodated, however, the driver can cancel the ride. It is not difficult to imagine how the process of booking an accessible trip with Lyft, only to be denied service after the driver has struggled to fit your wheelchair in the trunk or backseat of his car, would be a frustrating experience. This is in sharp contrast to the City's stated goal of equitable transportation services for people with disabilities.

Uber fares better than Lyft when accommodating people with disabilities. UberWAV drivers must take an approved WAV course through a recognized provider with requirements similar to the accessible vehicle training course that VFH drivers must take before driving an accessible vehicle. However, VFH drivers must complete a refresher course at least once every four consecutive years while UberWAV drivers are not required to take a refresher course under Toronto Municipal Code Chapter 546. As a result, VFH drivers of accessible vehicles are tested more frequently and are taught updated training practices and protocols. At a Vehicle-for-Hire By-law Review consultation on March 18, 2019, organized by City staff, several attendees with disabilities echoed this sentiment stating that accessible taxi drivers have better sensitivity training, safety protocols, and customer service standards than accessible PTC drivers.

Environment

The contribution of transportation to air pollution in Toronto is significant. Vehicle traffic contributes up to 41% of greenhouse gas emissions in Toronto.[108] This means that policies addressing vehicular emissions must be a component of any endeavors, plans or policies established by the City to realize the vision for better air quality.

The City of Toronto's Official Plan highlights the goal of *sustainability* in the area of environmental protection and the goal to create a city where *people understand the environmental consequences of their individual actions*.[109]

The City of Toronto's Environment and Energy Division is the municipal agency stewarding the City's vision for the environment. In addition to this, the Vehicle-for-Hire by-laws contain provisions that were put in place with the goal of accomplishing the City's stated vision and goals for the environment.

The City's vision and goals for the environment

The City of Toronto's Environment and Energy Division has outlined the vision of *leading the development and implementation of innovative environmental and energy policies and programs to make Toronto North America's most environmentally sustainable city.* To accomplish this vision, the City has outlined several objectives through the Environment & Energy Division's five-year business plan.[110,111]

The Objectives

The outlined City of Toronto objectives to accomplish its vision for the environment include the reduction of greenhouse gas emissions, the improvement of air quality, and the reduction of the release of harmful emissions.

The City has implemented and planned several projects and programs to accomplish its outlined vision and objectives. The following is a discussion of some examples.

The City has also set the goal of using low or zero carbon energy for all transportation in Toronto, by 2050.[112] Under *Smart Commute Toronto,* the City has set the goal of promoting environmentally friendly commutes for workers in Toronto, through the use of carpooling, cycling, and public transit, to reduce congestion and improve air quality.

Completed and Planned Projects

Table 13: Programs to improve air quality and reduction in emissions

Date	**Activity**	**Goal/Impact**
2011	15% reduction in emissions compared with 1990 levels	reduction of greenhouse gases and other harmful emissions
Planned	Investigating traffic emissions on air quality	reduction of emissions from traffic

The above two initiatives are examples of many programs and projects undertaken by the City of Toronto Environment and Energy Division. The City documents a more exhaustive list of environmental initiatives in its Five-Year Business Plan[113], and in the Environment and Energy Division annual reports.[114]

Regulations affecting Emissions and Air Quality in Toronto

The recent entry of PTCs has created some discrepancy in regulations established for the purpose of improving Toronto's air quality by controlling vehicle emissions. It is therefore important to assess the implications of such discrepancies, to understand how the goal of improving Toronto's air quality is aided or hampered. The relevant regulatory provisions include those that affect the types of vehicles permitted for use in the Vehicle-for-Hire industry for both PTCs and for taxicabs. The following is an outlining of these policies.

Table 14: VFH vehicle specifications

	PTCs	Taxicabs
Vehicle Age	No more than 7 years old	No more than 7 years old
Emissions considerations		**TTL Taxicabs** Must be accessible vehicles **Standard Licence Taxicabs** Must be any of the following types: 1. Accessible vehicle (D409 compliant) 2. Alternative fuel vehicle (e.g. ethanol, bio-diesel, natural gas, hydrogen) 3. Hybrid vehicle (e.g. gas/electric or gas/propane) 4. Low emission vehicle[1]

Vehicles permitted for operation

Under the current Vehicle-for-Hire By-law Chapter 546, both PTCs and taxicabs may not operate vehicles that are more than 7 years old. For taxicabs, this is a 2 year increase from the previous regulation that limited vehicles to 5 model years for operation.[115] Since vehicles can become relatively less fuel efficient and produce more harmful emissions with age. Limiting the legal age for operation of vehicles in the Vehicle-for-Hire industry can help guard against the exacerbation of Toronto's air quality through VFH industry operations.

All VFH vehicles including PTC vehicles are required to undergo inspection every 6 months, unless they traveled less than 40,000 kilometres in the previous year. Such vehicles must undergo inspection every 12 months.[116] Enforcement of the 7-year standard can therefore occur through the requirement for inspection every 6 to 12 months, and through the requirement to show an inspection certificate in order to renew a license. Foreseeable complications can however arise with unmarked PTC vehicles which can easily evade checks. Although it is a provision that PTC vehicles must display a PTC identifier, unmarked PTC vehicles could continue to be a problem.

Regulations for permitted vehicle types however are not uniform. There are no provisions for the use of fuel-efficient vehicles for PTCs, while for taxicabs, license owners must choose between four options, three of which are the kinds of vehicles designed to lower vehicle emissions and one of which is the

[1] Page 39 of chapter 546: Low-Emission Vehicle - A vehicle with lower emissions of greenhouse gas pollutants and smog pollutants than the average for that model-year, as indicated by:

1. Exhaust Emissions at or below Full Useful Life Emission Bin 5; and
2. For vehicles manufactured in and before Model Year 2014, a Combined Fuel Consumption Rating of 7 or fewer litres per 100 kilometres, and for vehicles manufactured in and after Model Year 2015, a Combined Fuel Consumption Rating currently estimated at 8.4 or fewer litres per 100 kilometres, to be adjusted to an actual rating after Natural Resources Canada publishes such rating in its Fuel Consumption Guide.

option of accessible vehicles. The restriction of the taxicab industry to fuel efficient vehicles was set with the goal of reducing greenhouse gas emissions by over 30,000 tonnes annually.[117]

The discrepancy between the emissions-efficient vehicle requirement for taxicabs versus no such requirement for PTCs means that any improvements for Toronto's air quality garnered from controlling vehicle emissions are contravened. This is especially true when the number of vehicle licenses is considered. The environmental gains from approximately 5,000 emissions-efficient taxicab vehicles will be completely off-set and reversed by the emissions from approximately 70,000 PTC vehicles that are not required to be fuel-efficient. Since there is no cap for PTC vehicles in Toronto and the PTC market is still growing, one can expect the number of PTC vehicles to grow significantly from its current estimate of 70,000 vehicles.

Another consideration is deadheading, which is the time a PTC vehicle spends on the move while waiting for a ride request. It is estimated that about 20% of PTC miles driven in San Francisco are deadhead miles, while 50% of the 600 million PTC miles in New York City are deadhead miles. Even with UberPool and Lyft Line considered, PTC vehicles contribute a significant amount of greenhouse gas emissions due to deadhead miles, during which they have no passengers.[118]

The number of hours of operation for taxicab and PTC drivers is also an important factor to the net effect of this discrepancy. Many taxicab brokerages and taxicab owners operate their vehicles 24 hours a day using multiple drivers per vehicle, since drivers are restricted to a 12-hour shift. PTC vehicles, while often used part-time for PTC operations by individuals who only drive part-time, could also be in use for up to 12 hours a day by drivers who depend on PTCs as their primary means of livelihood and for up to 24 hours a day in the case of vehicle fleet operations that rent out vehicle to individual drivers for PTC operations. It is therefore quite possible that many PTC vehicles are in operation for similar durations to taxicab vehicle operations each day.

Even in the case of only 10% of the estimated 70,000 PTC vehicles in operation for durations similar to taxicab vehicle operations, there will be 7,000 PTC vehicles, with no requirement to be emissions-efficient in operation, compared to the 5,000 taxicab vehicles that must either be accessible or emissions-efficient vehicles. Even at this conservative estimate of just 10% of PTC vehicles that are in operation for about 8 hours a day, the reversal of any gains made by requiring taxicab vehicles to be emissions-efficient will be significant. More importantly, the adverse effect to Toronto's air quality will be significant. The policy to mandate emissions-efficient vehicles for only taxicabs is contradictory to Toronto's goal for improved air quality.

The City's June 21, 2019, report on the *Review of the City of Toronto Municipal Code, Chapter 546, Licensing of Vehicles-for-Hire* recommends the removal of the requirement for taxicabs to be either accessible or one of three stated options for emissions-efficient vehicles in favor of an incentive program. This represents a step back in the realization of the City's vision of cleaner air.

Labour force and the Economy

Vibrant economies are vital to the viability of cities. Governance and regulation are important to safe-guarding the production and distribution of goods and services that undergird such vibrant economies and benefit of the general public. Private Transportation Companies are a substantial part of the economies of the cities that they operate in, with 3.9 million drivers on the Uber app alone.[119]

Municipal governments make and enforce many regulations affecting the economy including regulating the number of businesses in various sectors by instituting caps or more indirectly by regulating barriers to entry such as licenses with specific eligibility requirements. Municipal governments regulate business operations in such a way as to directly impact the operating costs of businesses including such regulations as mandatory inspections, mandatory insurance at specific levels of coverage, requirements for accessibility, environmental efficiency, and others. They control macroeconomic conditions by promoting predictable and reliable markets to attract and bolster investment, by discouraging and actively preventing monopolies, and by regulating the supply of businesses relative to demand in various sectors to protect those sectors and maintain their viability. Municipalities perform many other functions for the primary purpose of ensuring the economic well-being of their constituents. This chapter assesses such regulations and functions for the City of Toronto, specifically in the Vehicle-for-Hire industry.

The City's vision and goals for the economy and labour

In its Official Plan, the City outlines a vision to create *a strong and competitive economy with a vital downtown that creates and sustains well-paid stable, safe and fulfilling employment opportunities for all Torontonians.*[120]

The Objectives

Some policy objectives outlined in the Official Plan towards this vision include maintaining a strong and diverse economic base, contributing to a broad range of stable full-time employment opportunities for all Torontonians, promoting international investment in Toronto, and supporting employment and economic development that meets the objectives of Toronto's Workforce Development Strategy, including people-based planning and the Vision Statement on Access, Equity and Diversity[121].

The City of Toronto Economic and Cultural Development Strategy[122] outlines the objective of *advancing Toronto's prosperity, opportunity and livability by fostering employment and investment opportunities.* [123] A crucial necessity for attracting investment opportunities is risk minimization, through policy reliability. Investors place a premium on established and transparent policies that do not change arbitrarily.

The City of Toronto *Workforce Development Strategy* discusses job security and stability, as well as increasing competition for jobs as the first and most important factor in the labor market.[124]

Regulations affecting Vehicle-for-Hire Industry Labour

The City of Toronto regulates the economy and labour of the Vehicle-for-Hire industry through by-law 546. The following are the provisions for taxicabs and PTCs.

Table 15: VFH operating characteristics

	PTCs	Taxicabs
Fares	$3.25 minimum	$3.25 minimum + $0.25/0.143 km + $0.25/29 second +$2.00/passenger in excess of 4,
Vehicle Insurance	Mandatory insurance at $2 million/vehicle	Mandatory insurance at $2 million/vehicle
Hours of work	No special requirements for the PTC imposed by the City[2]	12-hour maximum/24-hour period[125]
VFH Vehicle Owner fee		$984.16/vehicle/year[126]
VFH Driver fee	$15/driver/year[127]	$130/driver/year[128]
VFH other fees	$20,000 application fee to PTC (not driver) $0.30 per trip	

The cost of transportation

Several studies have assessed the possible substitutionary effect of PTCs on other transportation services and modes. There is some consensus on convenience being an important factor. The ability to contract a vehicle from the ease of a mobile device for a door-to-door trip easily outcompetes the need to organize first-mile trips to a station and the purchase of fares from a vending machine, an agent, or making a phone call to contract a vehicle.

The cost of transportation services is another important factor. PTCs have been successful especially in competing with taxicabs because they are able to charge cheaper fares. This is of great benefit to consumers because it provides a more affordable alternative to taxis and a competitive alternative to transit. While taxicabs fares are tightly regulated with a required minimum and an additional charge of $0.25 per 0.143 km, PTC fares are comparatively more loosely regulated, with only the required minimum. The business models of PTCs like Uber allow them to charge fares that are less than the true costs of transportation and remain solvent in the short-run. According to Uber's S-1 filing, Uber has been running at an average loss of approximately $3 billion annually. Uber's dependence on private investors allows it to remain solvent while running such a loss. There is no guarantee therefore, that the affordable ridesharing services provided by Uber are sustainable in the long-run because Uber has an obligation to ultimately generate returns for its investors. The City of Toronto must take this into consideration when creating transportation policies that include ridesharing because unsustainable

[2] The City of Toronto does not currently limit the number of hours that a PTC driver may work in a day. However, PTCs have instituted their own policies which drivers must follow. In February 2018, Uber Canada announced that once drivers have been working for 12 consecutive hours, they will be forced offline for at least six hours before they can drive again. Time spent parked while waiting for a ping does not count towards the 12 hours. Lyft has employed a similar policy. For every 14 hours in driver mode, drivers must take an uninterrupted six-hour break. The 14 hours in driver mode do not have to be consecutive and Lyft will prevent drivers from going online during their break (https://commercialdriverhq.com/uber-12-hour-rule-canada-news/).

affordability in not in line with the City's goal of providing reliable and equitable transportation for people who live, visit, and work in Toronto.

Cheaper transportation services provided by PTCs impact Toronto residents. On one hand, PTC provide efficient mobility at comparatively lower rates. However, the question arises about how PTCs can deliver service at lower rates. Is it because their business model is better, or that PTCs can avoid labour regulations and pay the drivers less than what they would have earned driving as a taxicab driver? With three billion-dollar losses annually, the Uber model does not look financially viable, despite the scale it has already achieved.

The ability of PTCs to provide transportation services at less than the true cost of transportation means that PTC vehicle drivers may not be earning living wages when the cost of overhead and vehicle maintenance is considered. The anecdotal evidence from other jurisdictions suggests that driving for PTCs may not be a financially viable form of employment.[129] Uber drivers have been staging protests to demand better work compensation and benefits. Taxicab owners and drivers as a result are also economically less well-off since they are unable to bring in viable returns due to fierce competition from PTCs.

If driving for PTCs does not result in living wages and adversely impacts the wages of those who drive taxicabs, a fact that the City of Toronto must ascertain, then such an outcome will not concur with the City of Toronto's stated policy to *create a strong and competitive economy with a vital downtown that creates and sustains well-paid, safe and fulfilling employment opportunities for all Torontonians.*

Another important consideration is consumer choice. Again, while in the short-run, consumers enjoy more choice in transportation, the potential long-run effect of PTCs decreasing the modal share of transit and taxicabs might reduce consumer choice because the viability of transit depends on ridership. At a certain low level of ridership, transit will no longer be viable and the risk of transit infrastructure degradation increases as it falls into disrepair. This puts the substantial investment that the City has made into making transit viable at risk.

Insurance

One key component of operating cost for businesses providing transportation services is the requirement for insurance. The City of Toronto requires both taxicab vehicles and PTC vehicles to be insured with a minimum coverage of $2,000,000, but this requirement does not have uniform implications.

While the City collects insurance information directly from insurance companies to ensure that taxicabs are insured as per the City's requirements, this is not the case for PTCs. Taxicabs must be commercially insured 24 hours a day whether they are carrying a passenger. PTCs vehicles are not required to be covered 24 hours a day. Uber vehicles, for example, are only insured commercially at the required minimum of $2,000,000 while completing trips, during which they are carrying passengers. While deadheading or waiting for trip requests between trips, vehicles have commercial insurance coverage of $1,000,000, and are not covered at all when not on the Uber platform. When not on the Uber platform, Uber drivers must depend on their private insurance for coverage.[130,131] This partial commercial insurance coverage can drive up the cost of insurance in the general market. This is because in the event of an accident involving a PTC vehicle during a PTC trip, there is no fool-proof method of ensuring the accident is covered by commercial insurance as opposed to the driver's private insurance since PTC

vehicles can fluidly go between operating as PTC vehicles and operating as personal vehicles. Many companies have responded to this possibility by declining to cover PTC drivers. There are reported cases where insurance companies have dropped their insured drivers due to a lack of prior disclosure that insured vehicles were also being used for ridesharing trips.[132]

Hours of work

In Toronto, the maximum legal work limit for operating a vehicle for taxicab drivers is 12 hours, while there is no legal limit for the number of hours that a PTC driver can work in a single day. Uber's self-regulated maximum for its drivers is 12 continuous hours. In February 2018, Uber Canada announced that once drivers have been working for 12 consecutive hours, they will be forced offline for at least six hours before they can drive again.[133] Time spent parked while waiting for a ping does not count towards the 12 hours. Lyft has employed a similar policy. For every 14 hours in driver mode, drivers must take an uninterrupted six-hour break. The 14 hours in driver mode do not have to be consecutive and Lyft will prevent drivers from going online during their break.

Conclusions

This report has examined the vision and goals set by the City of Toronto for accessibility, mobility, environment, economy, and traffic and pedestrian safety. The primary objective of the report is to assess the regulatory provisions for the Vehicle-for-Hire industry. Policies can be evaluated not just by their ex-post outcomes, but at their onset, by their suitability to the vision, goal and the problem they are formulated to address. Policies that align well with the City's visions and goals are likely to accomplish the established goals and resolve challenges. On the other hand, policies that do not align well are unlikely to achieve the desired outcomes.

This report has undertaken a detailed review of the Vehicles-Fore-Hire (VFH) bylaw and contrasted the regulations against the stated goals for mitigating traffic congestion, reducing tailpipe emissions and traffic volumes by automobiles, improving accessibility for passengers with special needs, and improving passenger and traffic safety.

The report concludes that the existing VFH regulations have resulted in outcomes that are not in line with the City's established goals and priorities such that many of the aforementioned metrics have worsened as a result.

In conclusion, the report offers the following recommendations.

The report recommends that the City of Toronto should eliminate discrepancies in regulations that may adversely impact one set of operators while benefiting another. Regulations must be streamlined to improve the well-being of drivers, operators, owners, and, more importantly, passengers.

The report recommends that Vehicle-for-Hire regulations should be revised so that the stated policies and priorities for reducing traffic congestion and harmful tailpipe emissions, improving public transit ridership and traffic safety, and improving accessibility for passengers with special needs can achieve their intended goals. Furthermore, given the stated goal to provide fulfilling employment opportunities for all Torontonians, it is incumbent that the City should continue to observe the impact of PTC operations on the welfare of drivers and others involved in the vehicle-for-hire industry.

The proliferation of PTCs will have many other impacts on the City of Toronto. A recent report completed by the Ryerson Urban Analytics Institute addressed the impacts that key trends will have on parking and suggested that the City undertake a review of parking standards. The current requirements per condominium unit might be high where residents have many other options such as ride-hailing, taxis, transit, biking and walking (or combinations thereof).

Lastly, this report endorses the recent recommendations by the City Staff for improving mobility in the City of Toronto. The City staff recommended:

1. "Transportation Services [at the City of Toronto] to build a monitoring program as part of the Congestion Management Plan to monitor the impacts of Vehicles-for-Hire on VKT, traffic congestion and GHG emissions and to better-understand the relationship with traffic congestion trends in the city.

2. "Transportation Services to continue to study the impact of Vehicles-for-Hire on the Curbside Management plan and related policies.

3. “Transportation Services to investigate whether there is a road safety impact of Vehicles-for-Hire and to collaborate with MLS and the Toronto Police Service to collect appropriate data.

4. “In order to be able to continuously monitor and evaluate the impact of vehicles-for-hire on the transportation network, changes are required to the data currently being collected to include information on PTC volumes, wait times, trip cancelations, deadheading and curbside activity.”

Appendix

Guidelines for public participation according to The Official Plan:

The City of Toronto Official Plan states that:

A fair, open and accessible public process for amending, implementing and reviewing this Plan will be achieved by:

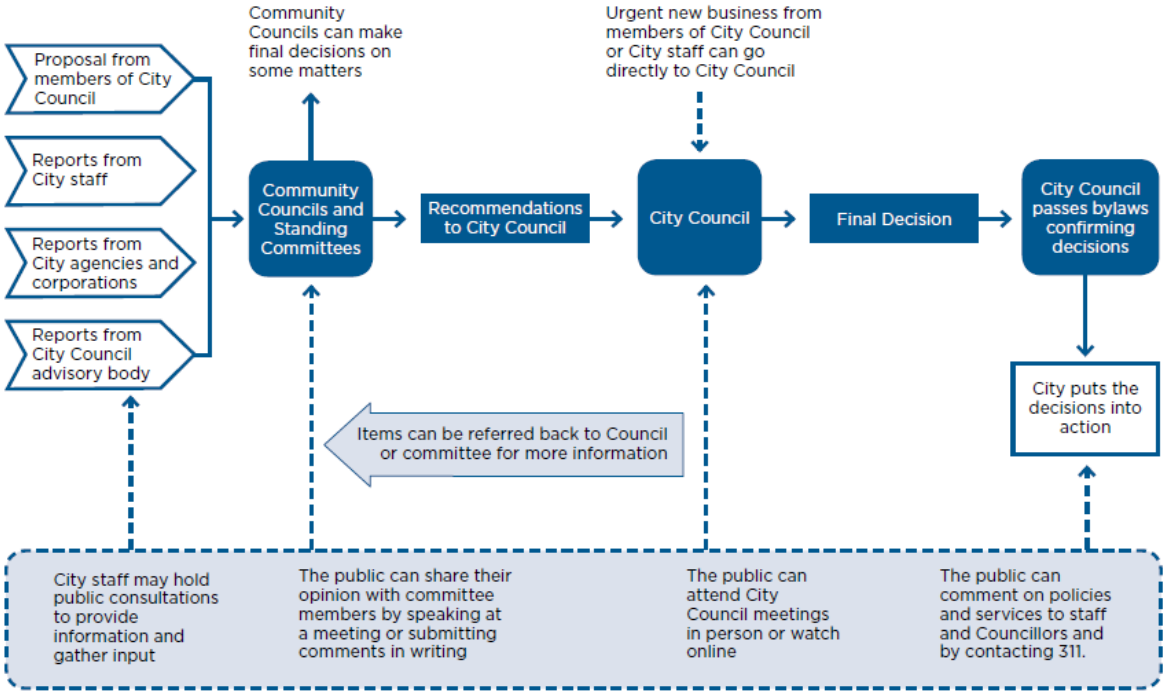
a) encouraging participation by all segments of the population, recognizing the ethno-racial diversity of the community and with special consideration to the needs of individuals of all ages and abilities;

b) promoting community awareness of planning issues and decisions, through use of clear, understandable language and employing innovative processes to inform the public, including the use of traditional and electronic media; and

c) providing adequate and various opportunities for those affected by planning decisions to be informed and contribute to planning processes, including:

> ***i. encouraging pre-application community consultation;***
>
> ***ii. holding at least one community meeting in the affected area, in addition to the minimum statutory meeting requirements of the Planning Act, for proposed Official Plan and/or Zoning By-law amendments prior to approval;***
>
> ***iii. ensuring that information and materials submitted to the City as part of an application during the course of its processing are made available to the public; and***
>
> ***iv. ensuring that draft Official Plan amendments are made available to the public for review at least twenty days prior to statutory public meetings, and endeavouring to make draft Zoning By-law amendments available to the public for review at least ten days prior to statutory public meetings, and if the draft amendments are substantively modified, further endeavouring to make the modified amendments publicly available at least five days prior to consideration by Council.***[134]

Figure 1: City of Toronto Decision-Making Process



Source: https://www.toronto.ca/wp-content/uploads/2018/11/9746-Introduction-to-Torontos-Government-Council-and-Committee-Structure-01.png

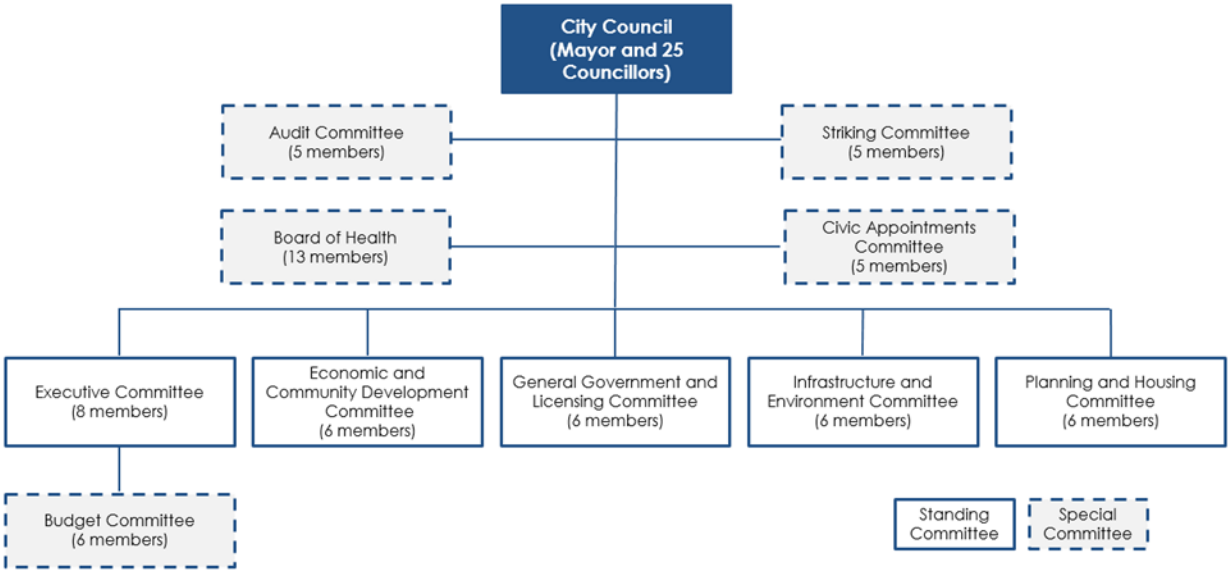
Table 16: City of Toronto Executive and Standing Committees

Committee	Responsibility
Executive Committee	Monitors and makes recommendations to Council on priorities, plans, international and intergovernmental relations, governance structures and processes including the City's relationship with its agencies and corporations, and the financial integrity of the City
Economic and Community Development Committee	Social cohesion and the economy, with a mandate to monitor and make recommendations on strengthening communities, neighbourhoods and the economy
General Government and Licensing Committee	City government assets and resources and business licensing, with a mandate to monitor and make recommendations on the administrative operations of the City and the licensing of businesses
Infrastructure and Environment Committee	Infrastructure and the natural environment, with a mandate to monitor and make recommendations on Toronto's infrastructure

	needs and services, parks and forestry and the sustainable use of Toronto's environment
Planning and Housing Committee	Urban form and housing development, with a mandate to monitor and make recommendations on planning, property standards, growth, and housing development

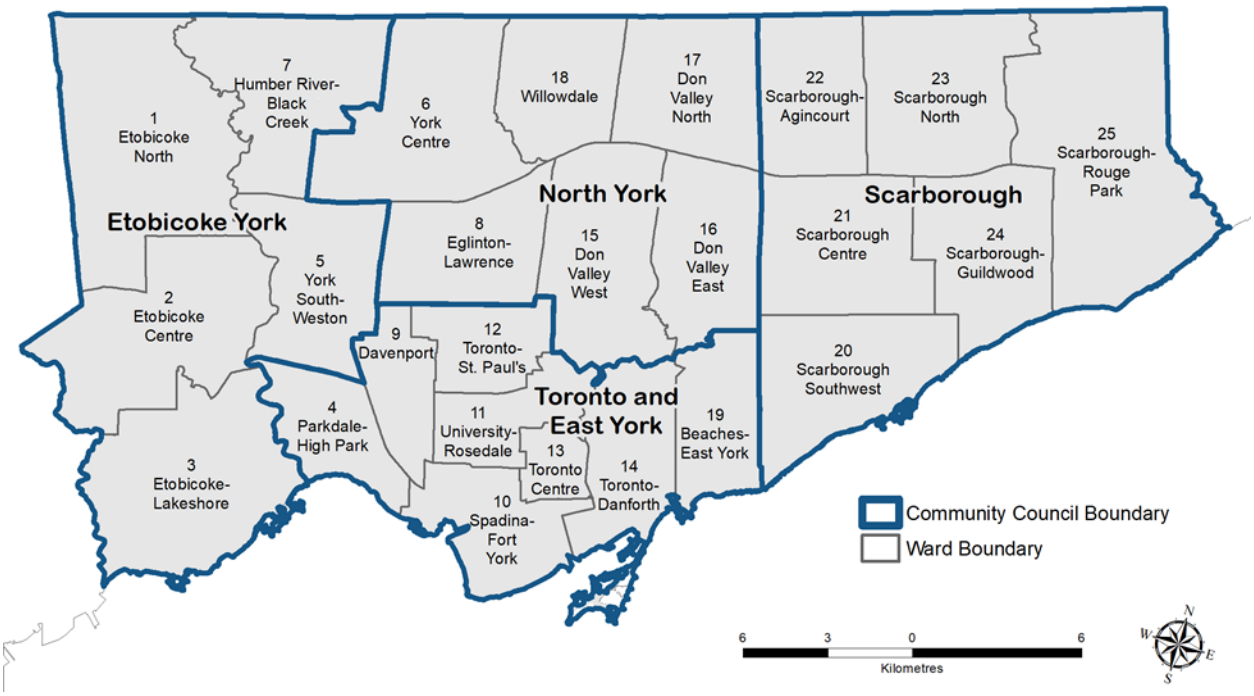
Source: https://www.toronto.ca/city-government/accountability-operations-customer-service/get-involved-how-government-works/torontos-governance-system/?accordion=public-engagement

Figure 2: City of Toronto Committee Structure



Source: https://www.toronto.ca/city-government/accountability-operations-customer-service/get-involved-how-government-works/torontos-governance-system/?accordion=public-engagement

Figure 3: City of Toronto Community Councils



Source: https://www.toronto.ca/city-government/accountability-operations-customer-service/get-involved-how-government-works/torontos-governance-system/?accordion=public-engagement

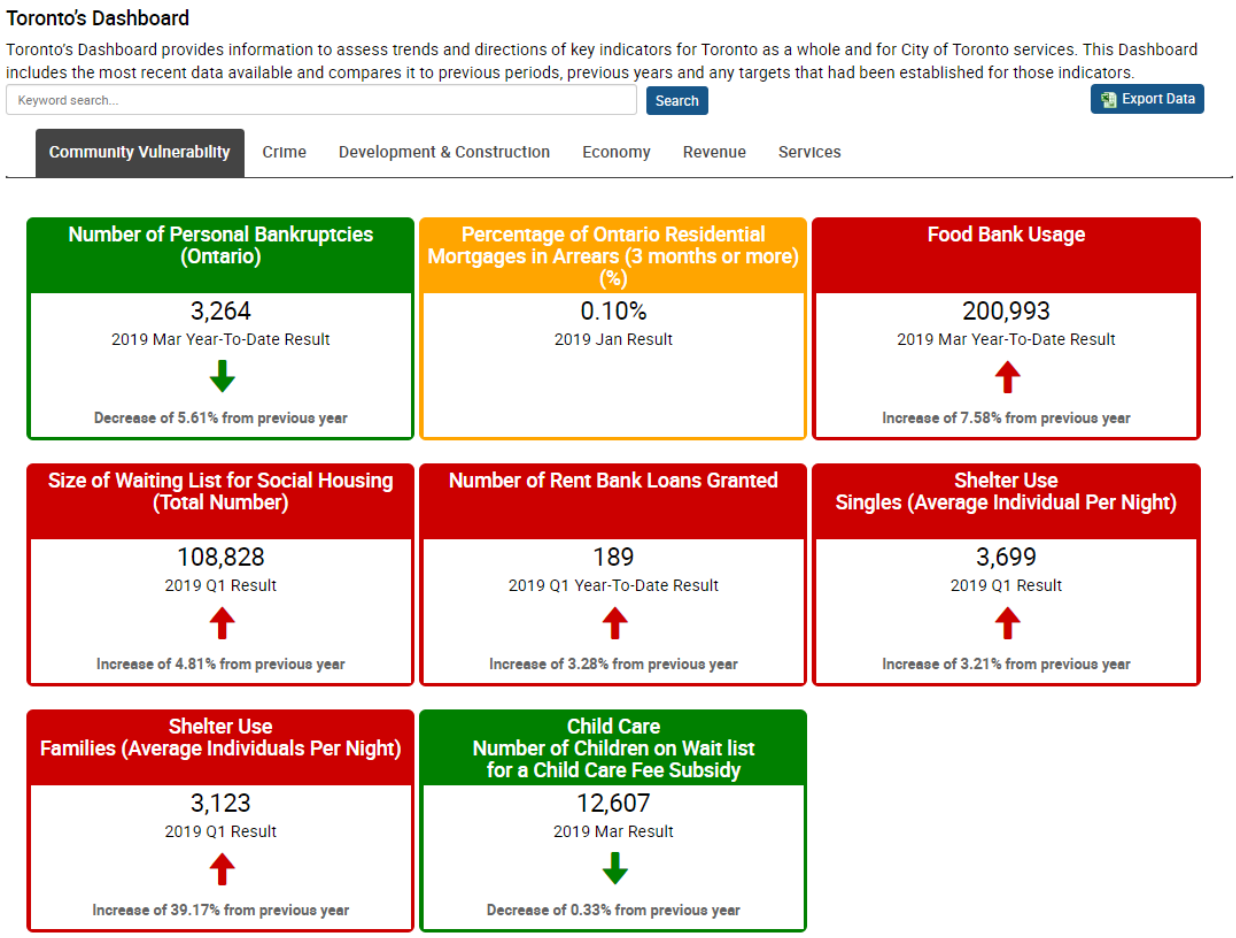
Table 17: City of Toronto Agencies and Corporations

Agency or Corporation (number)	**Responsibilities**
Service Agencies (32)	The City delivers key services through service agencies, including some community centres and arenas, libraries, police, theatre, public health, and transit services. Council approves the budget of most City agencies, appoints its board members and, in some instances, appoints its chair.
City Corporations (9)	City corporations own assets, or operate and manage assets for the City, approve their Budgets and staffing and operate independently from the City administration. The City is the sole shareholder of City-controlled corporations and their accountability is established through a Shareholder Direction and corporate by-laws approved by Council. Corporations are required to submit their annual audited financial statements and reports to Council as the shareholder, but Council does not approve their budgets or positions
Adjudicative Bodies (10)	Adjudicative bodies operate independently from the City and hold hearings to resolve disputes, regulate activities or

	adjudicate and to determine certain legal rights and benefits. The City's adjudicative bodies are established under legislation including the City of Toronto Act and the Planning Act. The City supports the administration of adjudicative bodies, so their administrative costs are included in divisional budgets approved by Council through its annual operating budget process.
Business Improvement Areas (83)	Designated by the City and partially funded through a levy on commercial and industrial property owners and business tenants in specific geographic areas, BIAs oversee the improvement and beautification of streetscapes, promote local businesses, and organize community events. Their operating budgets are funded through a levy on all commercial and industrial properties within the BIA boundary.

Source: https://www.toronto.ca/city-government/accountability-operations-customer-service/get-involved-how-government-works/torontos-governance-system/?accordion=public-engagement

Figure 4: Toronto's Dashboard



Source: https://www.toronto.ca/city-government/data-research-maps/toronto-progress-portal/

Table 18: Toronto Municipal Code 546 Definitions

Term	Definition
Taxicab	Includes any vehicle providing transportation to passengers at a public or private taxicab stand, in response to street hails from passengers, or in response to requests for service received through a taxicab broker, as well as any vehicle providing transportation to passengers that displays any sign or marking identifying, or likely to be perceived by a member of the public as identifying, the vehicle to be a taxicab.
Taxicab Broker	A. Any person carrying on business in Toronto accepting, advertising, or brokering requests for taxicab service in any manner, including any person offering or licensing a software application, website, or other technology that connects passengers with taxicab service or is held out as being for the purpose of connecting passengers with taxicab service, in relation to a taxicab that is not owned by that person, his or her immediate family, or his or her employer. B. In this definition "person" includes multiple persons who, acting together, carry on the business of a taxicab broker, despite the fact that no single one of those persons carries on the activity in its entirety, and such persons shall be subject to § 546-2A, and may be held jointly and severally responsible for each other's actions.
Taxicab Operator	Any person, other than a Vehicle-for-Hire driver operating a taxicab, who manages, rents out, controls, or otherwise has custody, whether partially or completely, of a taxicab licensed by the City of Toronto on behalf of its owner and who is or is required to be licensed under this chapter.
Private Transportation Company	A. Any person who, in any manner, accepts, facilitates, or brokers requests for or advertises or offers transportation in a private Vehicle-for-Hire to passengers for trips and who is or is required to be licensed under this chapter. B. A PTC does not include a person who facilitates "carpooling" as that term is defined by the Public Vehicles Act. C. In this definition "person" includes multiple persons who, acting together, carry on the business of a PTC, despite the fact that no single one of those persons carries on the activity in its entirety, and such persons shall be subject to § 546-2A, and may be held jointly and severally responsible for each other's actions.
Private Transportation Company Vehicle	A private Vehicle-for-Hire with a seating capacity of less than nine passengers excluding the driver used to provide

	transportation services to passengers that is or is required to be licensed under this chapter, but does not include taxicabs or limousines licensed under this chapter.
Private Transportation Company Driver	The driver of a private transportation company vehicle or a driver who provides transportation to passengers through a PTC and is licensed or is required to be licensed under this chapter, but does not include persons providing transportation that meets the definition of carpooling under the Public Vehicles Act.
Limousine Service Company	A. Any person who accepts, advertises, or brokers requests for limousine service in any manner, including any person who operates a platform that connects passengers with limousine service and who is or is required to be licensed under this chapter. B. In this definition "person" includes multiple persons who, acting together, carry on the business of a limousine service company, despite the fact that no one of those persons carries on the activity in its entirety, and such persons shall be subject to § 546-2A, and may be held jointly and severally responsible for each other's actions.
Owner	A. The owner of a vehicle operated as a taxicab or limousine that is licensed or is required to be licensed as such under this chapter; and B. The holder of the plate portion of a permit issued by the Ministry of Transportation, and, where the records of the Ministry of Transportation indicate that the motor vehicle is leased, the lessee, who is registered as such with the Ministry of Transportation.
Vehicle-for-Hire Driver	The driver of a taxicab or limousine, who is or is required to be licensed under this chapter.

Source: https://www.toronto.ca/legdocs/municode/toronto-code-546.pdf

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