

Municipal Best Practices Review Livery Transport Regulatory Frameworks

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Final Report

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City of Calgary

Prepared by:



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Solutions for growing economies

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Municipal Best Practices Review Livery Transport Regulatory Frameworks

The overall objective of this project is "support the City of Calgary ['The City'] in the accelerated review of the Livery Transport Bylaw that regulates drivers, vehicles and companies in Calgary's taxi, limousine and ride-hailing industry."

For the purposes of this study, *livery* refers to the taxi, limousine and transportation network company/private for-hire vehicle subsectors, in keeping with the definition used in Calgary.

Acknowledgements

CPCS acknowledges the clarifications and information provided by The City with respect to documenting CPCS's understanding of Calgary's Livery Bylaw. CPCS is also grateful to the jurisdictional experts consulted as part of this study.

Limitations This report is prepared for the exclusive use of The City of Calgary and may not be relied on by any third party. Specific methodological limitations are noted in Chapter 1. Cover and below image source: Mike Parsons

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Acronyms / Abbreviations

API APPLICATION PROGRAMMING INTERFACE ASE AUTOMOTIVE SERVICE EXCELLENCE BACP (CHICAGO) DEPARTMENT OF BUSINESS AFFAIRS AND CONSUMER PROTECTION CBD CENTRAL BUSINESS DISTRICT CCMP CONGESTION AND CURBSIDE MANAGEMENT PERMIT CCTV CLOSED CIRCUIT TELEVISION COTA CITY OF TORONTO ACT CPCS CPCS TRANSCOM LIMITED CPUC CALIFORNIA PUBLIC UTILITIES COMMISSION DOL (WASHINGTON STATE) DEPARTMENT OF LICENSING GPS GLOBAL POSITIONING SYSTEM HOV HIGH-OCCUPANCY VEHICLE FTE FULL-TIME-EQUIVALENT IATR INTERNATIONAL ASSOCIATION OF TRANSPORTATION REGULATORS LADOT LOS ANGELES DEPARTMENT OF TRANSPORTATION LTS (CALGARY) LIVERY TRANSPORT SERVICES MDS MOBILITY DATA SPECIFICATION ML&S (CITY OF TORONTO) MUNICIPAL LICENSING & STANDARDS PC&N PUBLIC CONVENIENCE AND NECESSITY PCI PAYMENT CARD INDUSTRY PDV PASSENGER-DIRECTED VEHICLE PFHT PRIVATE FOR-HIRE TRANSPORTATION PFHV PRIVATE FOR-HIRE TRANSPORTATION		
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PFHT PRIVATE FOR-HIRE TRANSPORTATION		
DELLY DRIVATE FOR HIDE VEHICLE		
PRIVATE FOR-TIRE VEHICLE		
PTB (BRITISH COLUMBIA) PASSENGER TRANSPORTATION BOARD		
PTC PRIVATE TRANSPORTATION COMPANIES		
PUC PUBLIC UTILITIES COMMISSION		
RCNY RULES OF THE CITY OF NEW YORK		
SLC SALT LAKE CITY		
TNC TRANSPORTATION NETWORK COMPANY		
TNP TRANSPORTATION NETWORK PROVIDER		
TNS TRANSPORTATION NETWORK SERVICE		
TTI TEXAS A&M TRANSPORTATION INSTITUTE		
VMT VEHICLE-MILES TRAVELLED		
WSP WASHINGTON STATE PATROL		



Selected Definitions and Notes

Multiple Names for Transportation Network Companies (TNCs)

There are multiple names used to refer to TNCs across jurisdictions, including transportation network services (TNS), transportation network provider (TNP) and private transportation provider (PTC). Though definitions may sometimes differ, when discussing practices overall we endeavour to refer to them consistently as TNCs, even if the legal definitions in each jurisdiction may differ.

"Capping" Refers to Limiting Supply of Livery Vehicles

Limiting supply is typically accomplished through a controlled entry model where vehicle licences (sometimes referred to as plates or medallions) are restricted.





Background and Objectives

Calgary's Livery Transport Bylaw 6M2007 (Livery Transport Bylaw) is the municipal legislation that regulates transport services in Calgary. Regulated livery transportation services in Calgary include limousines, taxis and private for-hire vehicles (PFHVs).¹ PFHVs are associated with transportation network companies (TNCs). TNC services are often referred to as "ride sharing," though they are more appropriately referred to as "ride hailing" or "ride sourcing." TNCs offer their services through an app. Drivers and companies providing livery services in Calgary are also subject to provincial regulations setting minimum requirements with respect to driver qualifications, vehicle registrations, insurance and record keeping; however, requirements for taxis, TNCs and limousines differ.⁴

In May 2019, Calgary City Council approved an accelerated review of the Livery Transport Bylaw,⁵ which included a best-practices review of regulatory practices in other jurisdictions in North America. Such is the aim of the present study. In this context, the stated objective of the Project is:

To support The City of Calgary ["The City"] in the accelerated review of the Livery Transport Bylaw that regulates drivers, vehicles and companies in Calgary's taxi, limousine and ride-hailing industry.⁶

To support this objective, a team led by CPCS Transcom Limited (CPCS) compared livery regulatory practices in Calgary against 15 other jurisdictions in North America. CPCS analyzed aspects of the livery regulatory framework such as driver requirements, company requirements, operating conditions, fleet size restrictions, rate setting/pricing, vehicle requirements, licensing and other government fees and data requirements. CPCS also interviewed regulatory experts in 15 other jurisdictions to identify effective practices, lessons learned and other trends that may affect sector regulation.

It is important to note that while CPCS selected municipalities as the unit of comparison, in other jurisdictions, authority for the regulation of livery vehicles or specific subsectors, such as TNCs, exists at the provincial/state level, rather than at the municipal level. While the municipal name is used for short-hand reference,

⁶ RFP, p. 37



¹ PFHVs are vehicles used to provide services arranged through a transportation network company (TNC) app.

² According to research by Texas A&M Transportation Institute: "Ride sharing refers to carpools and vanpools in which travelers organize to share rides and, often, the costs of those rides. The emerging concept of *real-time* ride sharing, in which providers facilitate carpools with technologies like those used by TNCs, is defined in U.S. Public Law 112-141 as an arrangement 'where drivers, using an electronic transfer of funds, recover costs directly associated with the trip provided through the use of location technology to quantify those direct costs, subject to the condition that the cost recovered does not exceed the cost of the trip provided."

In other words, services such as Lyft Line and UberPOOL, where riders share a vehicle for a portion of their trip, could be characterized as real-time ride sharing. However, ride sharing is only one subset of the services offered by TNCs.

Source: TTI Policy Research Centre. 2017. Policy Implications of Transportation Network Companies. https://static.tti.tamu.edu/tti.tamu.edu/documents/PRC-2016-1.pdf

³ TTI Policy Research Centre. 2017. Policy Implications of Transportation Network Companies. https://static.tti.tamu.edu/tti.tamu.edu/documents/PRC-2016-1.pdf

⁴ Alberta Transportation. Ride-for-hire service. https://www.alberta.ca/ride-for-hire-services.aspx.

⁵ City of Calgary, "City makes recommendations to Council following livery fee review," Calgary, May 27, 2019, https://newsroom.calgary.ca/city-makes-recommendations-to-council-following-livery-fee-review/.

reference to a specific municipality does not necessarily imply that it regulates all aspects of the sector and/or that it views all practices as being effective.

Methodology and Limitations

This report was prepared through a review of practices in over 15 jurisdictions in North America, which included:

- Comparison of legislation and practices between Calgary and 15 other jurisdictions
- Interviews with regulatory experts in 15 jurisdictions
- A literature review based on the jurisdictions studied and other sources observed through the study.

Methodological limitations are noted in Section 1.4.2. In particular, this report is not intended to provide The City with legal advice, specifically pertaining to matters such as liability or compensation for licence holders in relation to any proposed bylaw change.

A Note on the Term "Best Practices"

Although the present study is entitled a best practices scan, there is rarely, if ever, a universal best practice in regulatory policymaking. The selected regulatory approach depends on factors such as the jurisdiction's policy objectives and other jurisdiction-specific factors. Acknowledging this, we have typically used the term "effective practices" to avoid the suggestion that there is one universal "best" approach with which to regulate the sector. In addition, we have endeavoured to articulate any trade-offs between outcomes associated with certain practices (e.g. service quality versus congestion management, etc.).

Key Findings

The purpose of this report is to compare Calgary's current livery regulatory model with the practices from the jurisdictional scan, without suggesting a preferred regulatory model for Calgary. Chapter 3 contains a detailed comparison of Calgary livery regulations with those in other jurisdictions, and Chapter 4 summarizes effective practices, lessons learned, challenges and emerging trends identified in the jurisdictional scan. The following sections, framed in terms of questions, highlights some of the key findings from those two chapters:

Should The City's current hybrid closed/open model remain as is or be changed? Specifically, should The City limit ("cap") the number of vehicles in any subsector?

The livery industry (taxis, TNCs/PFHV and limousines) in Calgary is regulated through a controlled-entry model under which drivers, vehicle owners and companies (including brokers) are required to be licensed to operate. Under such a model, the number of vehicles operating may be limited. Specifically, in Calgary, the number of taxi licences is capped, whereas there is no limit on the number of PFHVs. Hence, Calgary refers to its model as a hybrid closed/open model.

A number of jurisdictions operate using a closed/open model similar to Calgary, in which the number of taxi vehicles that can operate is capped (primarily using vehicle licences often known as medallions) while an unlimited number of PFHV vehicles can operate (albeit with a controlled-entry model including various licensing requirements similar to Calgary).

In other jurisdictions, like Calgary, limits on taxi licences have existed for some time. According to the consultations, at least one US expert noted that the medallion system is not likely the preferred model, but persists due to concerns over the financial impact on the licence value and, in turn, the licence holder, which



culminates in potential financial risks to the issuing authority. An assessment of these risks goes beyond the scope of this study. However, we note that in certain other jurisdictions (e.g. King County/Seattle), the vehicle licence (medallion) was accepted as a financial instrument, which may not be similar to the legal structure of Calgary's licensing system.

In addition to this risk, another primary consideration affecting the decision whether to cap the number of licences was vehicle congestion. This issue is discussed in some detail below by comparing and contrasting practices in New York and Los Angeles. In addition, other policy considerations affecting the decision whether to cap the number of licences could include service quality to customers (e.g. in terms of wait times), driver earnings and ease of implementation.

Tales from Two Congested Cities: New York and Los Angeles

New York City, where a relatively high proportion of all vehicles are PFHV, is the only US or Canadian jurisdiction to our knowledge that has implemented a cap on PFHVs (in addition to taxis). Based on a study by the New York City Taxi and Limousine Commission and Department of Transportation ("the New York For-Hire Study"), 7 a cap on PFHV vehicles may slightly reduce congestion in the "core" of the city; however, as PFHV vehicles will continue to be drawn to the core where demand for livery services is higher, service quality measured in terms of wait times will worsen outside the core, given the fixed number of vehicles.⁸

In addition, because there are relatively fewer vehicles, there is potential for greater utilization. In turn, driver earnings may be higher. The New York For-Hire Study also notes that a cap might help improve driver compensation. However, the study also notes there is the risk that profits generated through capping benefit licence holders rather than drivers themselves (e.g. drivers are provided a smaller share of the revenues generated by trips, drivers are charged a larger fee to rent a vehicle holding a licence, etc.). In fact, there is historical evidence of the profits from the restricted supply accruing to the licence holder. Historically, a taxi licence, when sold/transferred in many jurisdictions, could be valued in the hundreds of thousands of dollars.⁹

Los Angeles is proposing to move towards a controlled-entry model for taxis and away from a franchise model.¹⁰ In California, TNCs are licensed by the state, so the City of Los Angeles does not have the authority to cap the number of TNC PFHV licences. While Los Angeles, by some metrics,¹¹ is more congested than New York City, taxis only make up a small percentage of operating vehicles (as indicated by experts). Furthermore, given the geographic distribution of Los Angeles, one study reported that Lyft and Uber have a relatively low modal share of vehicle-miles travelled (VMT)¹² of between 2%-3%. In this context, the policy rationale to continue to restrict the number of operating taxis no longer held, given that the number of PFHVs is not limited.

¹² VMT is a measure of how far, in aggregate, vehicles such as cars, trucks, etc. travel.



⁷ New York City Taxi and Limousine Commission and Department of Transportation. 2019. Improving Efficiency and Managing Growth in New York's For-Hire Vehicle Sector.

⁸ This concern was echoed in a study for Los Angeles.

Sam Schwartz. 2019. Draft: LADOT Taxi and For-Hire Vehicle Study.

⁹ A 2014 Conference Board of Canada study reported the estimated value of taxi licences in 2007 in selected Canadian municipalities. The highest licence value in Canada at the time was in Vancouver (approximately \$500,000). The licence value in Calgary at the time was approximately \$80,000.

The Conference Board of Canada. 2014. Reforming Dairy Supply Management: The Case for Growth.

¹⁰ Under a franchise model, taxi companies are licensed by the city to provide taxi services. Under the franchise agreements, there are conditions such as the maximum number of vehicles that can be operated, for example.

¹¹ E.g. TomTom's Traffic Index: https://www.tomtom.com/en_gb/traffic-index/ranking/?country=CA,MX,US

Potential Approach in Calgary

In essence, if The City decides not to implement a cap on TNC PFHV vehicles, then some have argued that there is no rationale for continuing to cap taxi licences (considering arguments over congestion, etc.). Thus, the first key question is whether The City believes that implementing a cap on TNCs is warranted. The response would in turn guide the second key question - whether to continue capping taxi licences:

- If the response is **yes** to capping PFHVs, then it makes sense to cap the number of taxi licences as well.
- If the response is **no** to capping PFHVs, then there is not a strong rationale to continue capping taxi licences; however, The City may wish to consider other factors in its decision-making (e.g. risks of financial impacts to licence holders and The City).

Figure ES-1 summarizes the trade-offs associated with implementing a cap on PFHV and taxis. Implementing a cap to address congestion does not appear to be particularly effective at meeting the congestion-reduction objective, as it is likely that livery vehicles would continue to gravitate to where demand is highest (e.g. the

core). In addition, there is the potential trade-off of decreases of service quality in terms of increased wait times, particularly in non-core areas.

If the rationale for implementing a cap is to address driver earnings, then it is worth noting that a cap in itself would not ensure that drivers Even if a cap is not the preferred model selected in Calgary, congestion generated by livery vehicles is a significant concern expressed by a number of jurisdictions

benefit from higher vehicle utilization, as vehicle licence holders/companies could retain a greater proportion of revenues.

Finally, while there is often significant focus on some of the issues generated by expanding the number of livery vehicles, such as congestion, there have also been economic benefits from the increased supply of livery vehicles. For example, in Toronto, a study entitled the "Economic Impact Analysis of the Toronto's Taxicab, Limousine and Private Transportation Companies" found that the economic benefits¹³ for both taxi and TNC users increased by over \$110 million between 2011 (prior to TNC entry) and 2016 (after TNC entry). ¹⁴ In other words, while the expansion of the supply of livery vehicles has created concerns, it has also generated significant consumer benefits.

Despite these benefits, congestion generated by livery vehicles is a significant concern expressed by a number of jurisdictions. Many jurisdictions noted the need for stronger measures, including related to data collection, to study and address congestion. Other strategies that have been implemented or explored to address congestion include: (1) a congestion charge for trips or pick-ups/drop-offs in certain areas during certain times of day; (2) blocking high-traffic areas from livery vehicles through dispatch or app restrictions ("geofencing"); (3) caps/limitations on time spent cruising (driving without passengers); and (4) requiring special permits to operate in high-traffic areas (with additional conditions on pick-up locations, etc.).

¹⁴ WSP. 2019. Economic Impact Analysis of the Toronto's Taxicab, Limousine and Private Transportation Companies.



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¹³ In the study, the benefits were estimated based on the change in consumer surplus.

Figure ES-1: Potential Trade-offs Associated with Implementing a Cap on Taxis and TNC PFHVs

Dimension	Trade-offs	Rationale and Other Considerations	
Congestion	Some studies have shown that a cap would slightly reduce congestion in the "core" of the city.	 Calgary has relatively low levels of congestion relative to New York, where TNC caps have been implemented.¹⁵ Other more targeted measures to address congestion exist, should it be perceived to be a policy issue. Livery vehicles make up a relatively small proportion of overall traffic. 	
Service quality	Wait times would be expected to increase, particularly in non-core areas.	For-hire vehicles would continue to gravitate to where demand (and congestion) is highest (i.e. the core); wait times can increase to a greater extent outside of the core.	
Driver earnings	Depends: may increase driver earnings through increased utilization but depends on the extent to which for-hire companies pass along the increased revenues to drivers.*	*This is a risk noted by a study conducted for the New York City Taxi and Limousine Commission and Department of Transportation. 16 New York City is also implementing several other mechanisms to address driver earnings, in part due to the high number of drivers (approximately two-thirds) working full time. In the past, economic profits from constrained supply most benefited taxi plate owners (not synonymous with drivers unless they own plates) and came at the expense of consumers through higher generalized costs. 17	
Ease of implementation	Depends on analytical rigour used to define the policy.	 Given changing consumer expectations, it is unclear what would be a new cap level. One discussion suggested that a "cap" limit based on the number of trips may incentivize under-reporting trips. 	

Source: CPCS, based on sources cited and further discussion in this report.

How do other municipalities ensure the safety of the travelling public, drivers and others, as well as consumer protection? What oversight is needed?

Even jurisdictions that have considered economic deregulation of the taxi industry (i.e. removal of licence caps) believe that maintaining regulations to ensure public safety is important. Safety regulations have been maintained even in Canadian transportation industries — trucking, airlines, rail, etc. — where significant economic deregulation has occurred in the past. However, there were different practices observed in the scan, which are discussed below.

¹⁷ The Conference Board of Canada. 2014. Reforming Dairy Supply Management: The Case for Growth.



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¹⁵ For example, according to TomTom's Traffic Index, Calgary's congestion index is 18%, relative to New York City 36%. Based on previous CPCS analysis for the Calgary Goods Movement strategy, congestion, measured by relative travel times and speed, tends to be localized, both in time (i.e. peak periods) and space (certain locations).

¹⁶ New York City Taxi and Limousine Commission and Department of Transportation. 2019. Improving Efficiency and Managing Growth in New York's For-Hire Vehicle Sector – Final Report.

Should The City continue to license drivers directly?

Calgary licenses livery drivers. Through this process, The City verifies that livery drivers meet a number of eligibility requirements (e.g. ensuring that they have a provincial commercial driver's licence, etc.).

Regulators in a number of jurisdictions, either only for TNC PFHV drivers or for all subsectors, no longer license drivers directly. In turn, they have shifted responsibility for conducting driver eligibility checks (e.g. background checks, driver record checks, etc.) to taxi companies and transportation network companies. In these jurisdictions, regulatory authorities verify that companies comply with the driver eligibility checks through data audits on driver applications submitted by the company. Accordingly, drivers no longer pay licensing fees to the regulator in these jurisdictions.

The primary argument for no longer licensing drivers directly is that it helps regulatory authorities limit administrative costs by stopping to process applications, with limited concerns that the effective compliance rate in performing eligibility checks has decreased (Figure ES-2). One Canadian expert noted that they did not see any significant increase in error rates from TNCs' verification of driver records compared to those issued by the regulator. However, another US expert in a jurisdiction where the regulator continues to license TNC drivers said they saw a high degree of technically deficient applications, though a relatively small (<1%) number of drivers failed to meet the licensing criteria. Overall, most jurisdictions that no longer license directly indicated that they still maintain ongoing (rather than ad hoc) audits of driver information submitted by companies.

Figure ES-2: Potential Trade-offs Associated with Licensing Companies-only

Dimension	Trade-offs	Rationale and Other Considerations
Compliance	Some jurisdictions reported initial compliance by companies as low as 80% (i.e. 80% of drivers submitted by companies met company requirements); however, this compliance rate was based on submission errors (e.g. typos, etc.) at a specific point in time. Once errors were corrected, few drivers (less than 1%) did not meet regulatory requirements. Nonetheless, with thousands of drivers operating in a jurisdiction, this still could represent a relatively significant number of drivers.	 Another Canadian jurisdiction noted that TNC rates of compliance were no worse than the levels they were able to maintain as a regulator.
Administrative Resources of Regulatory Body	A number of jurisdictions indicated that this model of licensing companies and auditing driver records has limited staffing levels as PFHV fleets have grown; at least one Canadian jurisdiction noted that it has one full-time clerk that audits records on an ongoing basis. (If this figure were extrapolated based on Calgary's population, there would be approximately two to three FTE.)	 We did not directly compare licensing staffing between Calgary and other jurisdictions.
Accountability	Ensures accountability as the safety of the operations is clearly placed on the companies.	 Consistent with regulatory approaches used in Canada for the regulation of transportation operations.
Speed of Licensing	Our understanding from The City is that Calgary Livery Transport Services can typically license a driver within 10-14 days, the majority of which is used for the required background check. As a result, there does not appear to be significant scope to reduce licensing time, as compared with other jurisdictions.	

Source: CPCS, based on sources cited and further discussion in this report.



If Calgary elected to move away from directly licensing drivers, and shifted the onus to companies, there would still appear to be a need to ensure sufficient resources to audit driver records (i.e. submitted daily by companies along with all supporting information). We heard some anecdotal information about the staffing levels within certain regulators; however, there was not sufficient evidence to opine on a best-practice staffing level. In addition, an offence and fine for companies failing to ensure compliance (e.g. Section 57.1 of the BC Passenger Transportation Act) would need to be created. However, overall, ensuring sufficient resources to perform ongoing audits appeared to be an effective practice, in the sense that regulators were able to opine on company compliance with driver eligibility checks over time as well as perform further investigations, if warranted.

To what extent should The City maintain trade dress/distinctive marking requirements?

In Calgary, as well as in other jurisdictions, taxis are typically subject to more prescriptive exterior vehicle marking (e.g. plates) and trade dress requirements. Some jurisdictions have or are aiming to move away from maintaining prescriptive trade dress and vehicle marking requirements. A number of jurisdictions noted that they increasingly see trade dress as a company management question rather than a regulatory one. They note that TNC vehicles, such as Uber and Lyft, have minimum trade dress and that distinctive markings are no longer a customer expectation.

Nonetheless, multiple jurisdictions noted that some form of government-mandated identification for vehicles accepting street hails is still warranted, such as a sticker on the side of the windows. However, other jurisdictions are accepting if some of these elements can be removable during out-of-service hours, or at least so that they do not permanently impact vehicles and further reduce their value.

For livery companies that offer their services through an app, we heard that the focus was on ensuring that passengers got into the correct vehicle that they were matched with through the app (and for which the company, driver and vehicle should have gone through a licensing process). One jurisdiction noted that it is focusing its public safety messaging on ensuring that passengers check that the licence plate of the vehicle matches with that on the app, along with the driver and vehicle. BC's requirements for TNC apps similarly also specifies that a message be displayed in the app to encourage the passenger to verify the driver, vehicle and licence plate.

In Calgary, we make some further observations based on this finding. Given that Alberta does not require a front licence plate, it is not possible to identify on quick glance to confirm whether the vehicle approaching the curb is the correct vehicle. The City could request that the Province mandates a front licence plate for commercial vehicles to aid with such identification. Alternatively, potentially The City could explore requiring a front, municipally issued decal, which has an identifier that matches that of the vehicle's licence plate. Some TNCs are piloting a system in which the app issues a unique identifier to passengers, which in turn must be provided to the driver (and matched) before a trip can commence, which could potentially be required through an updated bylaw. These latter options were not specifically discussed in the jurisdictional scan. The underlying issue that the expert raised was that for public safety messaging, given the proliferation of private livery vehicles, trade dress should be less emphasized as a unique identifier.

Should driver training be required?

In general, the literature shows that training requirements following the introduction of TNCs has declined in various municipalities. BC's new model does not require any additional training beyond the requirements of obtaining a provincial Class 4 commercial-level licence; though the regulator has the authority to mandate it. One jurisdiction, Toronto, was planning to reintroduce training requirements, after having removed them following the initial introduction of TNCs.



Overall, the research and several discussions mentioned the importance of ensuring that *all* drivers are trained with interacting with people with disabilities. Considering that many disabilities are not necessarily obvious, some jurisdictions are planning to introduce training requirements for all drivers. One Canadian

Overall, the research and several discussions mentioned the importance of ensuring that all drivers are trained with interacting with people with disabilities

jurisdiction noted that the public ostensibly expects a minimum level of training. As such, it planned to focus training on safety, accessibility and other core legal requirements (beyond those required for drivers to obtain their driver's licence), including service standards, interacting with people with disabilities, transporting in a safe manner (e.g. pick-up/drop-off) and driving with service animals.

To the extent discussed, other jurisdictions did not believe other training requirements were warranted, in part as they believed that customer service is the responsibility of the company.

Calgary provides direct training to drivers, but alternative training mechanisms exist. Some jurisdictions (unlike Calgary) mandate that drivers are trained through accredited third-party providers, rather than through the municipality itself. To the extent it was discussed, one jurisdiction noted that this was done primarily because third-party providers had stepped in to provide training upon deregulation. Thus, our understanding is the selected delivery approach emerged based on the evolution of the regulatory framework, rather than being selected deliberately based on evidence that it was preferred in some fashion (e.g. improved outcomes, lower cost, etc.).

If the training were outsourced or a required condition for livery companies, The City would still need to expend resources to accredit the program and potentially audit it to ensure quality. In other words, The City would still incur expenses, which would need to be recouped through fees, in addition to losing control over the delivery of the training. One advantage is that companies could potentially combine minimum training with their own company training, potentially lessening the burden on drivers. Overall, though not a focus of the analysis, we did not identify any compelling arguments for one delivery model over the other.

How do Calgary's livery licensing fees compare to those in other jurisdictions?

Broadly, Calgary's licensing fees are within the range charged by the other jurisdictions. However, we observed that Calgary's existing driver licensing fees at \$141-\$229 were higher than observed in most other jurisdictions studied. As noted, in part to limit administrative costs, a number of jurisdictions (e.g. BC) are seeking to shift the responsibility of ensuring driver compliance with regulatory requirements to operating companies, with regulators maintaining an auditing and enforcement function. In turn, drivers do not directly pay a licensing fee to the regulator.



1 Introduction

1.1 Background and Objectives

Calgary's Livery Transport Bylaw 6M2007 (Livery Transport Bylaw) is the municipal legislation that regulates transport services in Calgary. Regulated livery transportation services in Calgary include limousines, taxis and private for-hire vehicles (PFHVs).¹⁸ PFHVs are associated with transportation network companies (TNCs). TNC services are often referred to as "ride sharing,"¹⁹ though they are more appropriately referred to as "ride hailing" or "ride sourcing." TNCs offer their services through an app.²⁰ Drivers and companies providing livery services in Calgary are also subject to provincial regulations setting minimum requirements with respect to driver qualifications, vehicle registrations, insurance and record keeping; however, requirements for taxis, TNCs and limousines differ.²¹

In May 2019, Calgary City Council approved an accelerated review of the Livery Transport Bylaw,²² which included a best-practices review of other jurisdictions in North America. Such is the aim of the present study. In this context, the stated objective of the Project is:

To support The City of Calgary ["The City"] in the accelerated review of the Livery Transport Bylaw that regulates drivers, vehicles and companies in Calgary's taxi, limousine and ride-hailing industry.²³

To support this objective, a team led by CPCS Transcom Limited (CPCS) compared livery regulatory practices in Calgary against 15 other jurisdictions in North America, considering regulatory framework dimensions including driver requirements, company requirements, operating conditions, fleet size restrictions, rate setting/pricing, vehicle requirements, licensing and other government fees, and data requirements. CPCS also interviewed regulatory experts in 15 other jurisdictions to identify effective practices, lessons learned and other trends that may affect the regulation of the sector.





¹⁸ PFHVs are vehicles used to provide services arranged through transportation network company [TNC] apps.

¹⁹ According to research by Texas A&M Transportation Institute (TTI): "Ride sharing refers to carpools and vanpools in which travelers organize to share rides and, often, the costs of those rides. The emerging concept of *real-time* ride sharing, in which providers facilitate carpools with technologies like those used by TNCs, is defined in U.S. Public Law 112-141 as an arrangement 'where drivers, using an electronic transfer of funds, recover costs directly associated with the trip provided through the use of location technology to quantify those direct costs, subject to the condition that the cost recovered does not exceed the cost of the trip provided."

In other words, services such as Lyft Line and UberPOOL, where riders share a vehicle for a portion of their trip, could be characterized as real-time ride sharing. However, ride sharing is only one subset of the services offered by TNCs.

Source: TTI Policy Research Centre. 2017. Policy Implications of Transportation Network Companies. https://static.tti.tamu.edu/tti.tamu.edu/documents/PRC-2016-1.pdf

²⁰ TTI Policy Research Centre. 2017. Policy Implications of Transportation Network Companies. https://static.tti.tamu.edu/tti.tamu.edu/documents/PRC-2016-1.pdf

²¹ Alberta Transportation. Ride-for-hire service. https://www.alberta.ca/ride-for-hire-services.aspx.

²² City of Calgary, "City makes recommendations to Council following livery fee review," Calgary, May 27, 2019, https://newsroom.calgary.ca/city-makes-recommendations-to-council-following-livery-fee-review/.

²³ RFP, p. 37

A Note on the Term "Best Practices"

While the present study was entitled a best practices scan, in the case of regulatory policy-making, there is rarely, if ever, a universal best practice. The regulatory approach taken will depend on factors including the jurisdiction's policy objectives and other jurisdiction-specific factors. To this end, we have typically used the term "effective practices" to avoid the suggestion that there is one universal "best" approach with which to regulate the sector. In addition, we have endeavoured to articulate any trade-offs between outcomes associated with certain practices (e.g. service quality versus congestion management, etc.).

1.2 Overall Project Structure

We carried out the project in three broad tasks, as shown in Figure 1-1. The present Final Report is the output of Task 3.

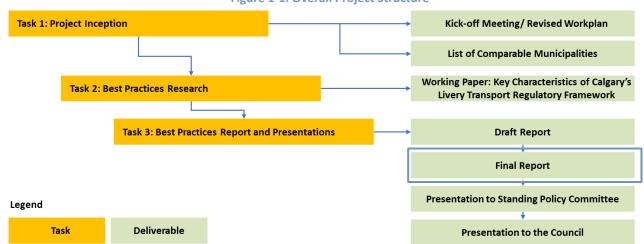


Figure 1-1: Overall Project Structure

1.3 Purpose of this Report

The purpose of this report is to document the findings from the jurisdictional scan, including effective practices, without offering opinions as to a preferred regulatory model. We identified five key questions to guide this scan:

- 1. What are the key characteristics and features of Calgary's livery transport regulatory framework?
- 2. What are the key characteristics and features of the livery transport regulatory frameworks in other North American municipalities, including where TNCs and controlled-entry regulation have been introduced?
- 3. How does livery transport regulation in Calgary compare to such regulation in other North American municipalities?
- 4. What are the best practices/lessons learned from the jurisdictional scan of livery transport regulation?



5. What emerging trends in livery transport options or technology may be anticipated in the next five years?

1.4 Methodology and Limitations

1.4.1 Methodology

This report was prepared through a review of over 15 jurisdictions²⁴ in North America, which included:

- Comparison of legislation and practices in Calgary to other jurisdictions, including licensing fee schedule elements. We convert US Dollars (USD) to Canadian Dollars (CAD) at 1 CAD = 0.75 USD.
- Interviews with 15 regulatory experts: Appendix A lists the organizations consulted. The interviews
 were approximately an hour-long each and aimed to solicit opinions and facts regarding effective
 practices and challenges, as well as trends that might affect the livery sector in the next five years.
 The interviews were guided through a structured questionnaire consisting of open-ended questions
 (Appendix B).
- A review of literature emerging from the jurisdictions studied, as well as other sources observed through the study.

The methodology for shortlisting 15 jurisdictions for further study is documented in Chapter 2.

1.4.2 Limitations

Interpretation of the study results is subject to limitations, including:

- 1. The research in this study regarding the laws in Calgary or other jurisdiction is **not** intended to provide legal interpretations and advice, and should not be relied on as such by The City or any third party.
- 2. The scope of this study did not include consultations with the public or industry. While the present study makes observations about practices in Calgary as they may compare to other jurisdictions, it does not provide specific recommendations for regulatory models that Calgary *should* pursue. Rather, the findings of this study are intended to inform The City in the next steps of their bylaw review.
- 3. While this study provides a critical review of the findings of the literature review and interviews with experts, and aims to differentiate between different evidence (opinions, studies, models, etc.), it is in part based on third-party information, which cannot be validated.

In addition, in the interest of focusing study efforts on reviewing other jurisdictions, some information about The City's bylaw was compiled and provided to CPCS by City staff, rather than a direct review of The City's Bylaw. CPCS reviewed some, though not all, elements of The City's Livery Bylaw.

Finally, it is important to note that while CPCS selected municipalities as the unit of comparison, in other jurisdictions, authority for the regulation livery vehicles or specific subsectors (e.g. TNCs) exists at the provincial/state level, rather than at the municipal level. While the municipal name is used for short-hand

²⁴ The scan included a direct comparison with 15 other jurisdictions, but selected other practices noted during the scan are documented.



reference, reference to a specific municipality does not necessarily imply that it regulates all aspects of the sector and/or that it views all practices as being effective.



2 Methodology for Shortlisting Jurisdictions

Key Chapter Takeaway

- The purpose of this chapter is to shortlist approximately 15 North American municipalities for further study. The list is compiled via preliminary research and data analysis, consultations with internal experts and input from The City of Calgary.
- The 15 municipalities selected are intended to illustrate a cross-section of North American practice and, through research, elicit effective practices for regulating the livery industry (specifically taxis, limousines and vehicles for hire).
- Given that this chapter was prepared prior to CPCS conducting in-depth research, any comments made in
 this chapter should not be construed that a particular jurisdiction is "leading" or that a particular practice
 is "effective." Such a determination can only be made through the research discussed in subsequent
 chapters.
- The shortlisted municipalities in Canada are Edmonton, Mississauga, Montreal, Ottawa, Toronto and Vancouver.
- The shortlisted municipalities in the US are Denver, Chicago, Houston, Los Angeles, New York City, Portland, Salt Lake City, San Francisco and King County/Seattle.

2.1 Approach for Shortlisting

2.1.1 Need for Shortlisting

According to data from Statistics Canada and the US Census Bureau, there are nearly 100 metropolitan areas in the US and Canada that have a population over one million people. Because of the qualitative research required, it is impractical to conduct a census of all regulations applicable to the livery industry in Canada and the US; thus, shortlisting of jurisdictions is required. The purpose of this chapter is to shortlist approximately 15 municipalities in North America to further document their approaches to regulating the livery transport sector.

Though this sampling approach may not identify all practices for regulating the livery industry, in CPCS's experience, it is sufficient to draw out most of the key effective practices and lessons learned.

Given that this chapter was prepared prior to CPCS conducting in-depth research, any comments made in this chapter should not be construed that a particular jurisdiction is "leading" or that a particular practice is "effective". Such a determination can only be made through the research discussed in subsequent chapters.



2.1.2 Sources of Input for Shortlist

We used a bottom-up²⁵ approach to shortlist 15 municipalities; that is, we populated the list of 15 by selecting each municipality individually. In populating the shortlist, we considered inputs from the following sources (Figure 2-1):

1. Presenters at the International Association of Transportation Regulators (IATR) 2019 Conference in Calgary: The IATR is "a growing peer group of taxi, limousine and for-hire transportation regulators, dedicated to improving the practice of licensing, enforcement and administration of for-hire transportation through the sharing of information and resources."²⁶ Regulators from around Canada and the US presented on curated panels including "Innovative Regulatory

IATR
Conference

Shortlist of
Municipalities
Expert
Input
Input from
The City

Figure 2-1: Approach for Shortlisting Municipalities

Source: CPCS

Frameworks – The Future of Mobility" and "An Introduction to Calgary – Challenges, Solutions & Accomplishments" [which included panelists from conference "Sister Cities" to Calgary], which are indicative of innovative practices and comparators to Calgary, respectively.

- 2. **Team member expertise:** We considered expert input from the Texas A&M Transportation Institute (TTI) and Compass Transportation and Technology (Richard Mudge), both of which have previously conducted scans of urban transportation regulations and related fields, such as new mobility. We also drew from CPCS expertise conducting jurisdictional scans related to transportation in Canada and the US.
- 3. **Background research:** We conducted preliminary qualitative research (e.g. web searches, industry literature, etc.) to identify elements of practice in each jurisdiction. We also conducted some quantitative research to ensure the municipalities in the shortlist are broadly comparable to Calgary (or point out areas where they may not be).
- 4. **Input from The City of Calgary ("The City"):** Through discussions at the kick-off meeting and submission of this chapter early in the study, we received some input from The City as to municipalities of particular interest or other concerns, such as the risk of "circularity"; that is, the potential that another jurisdiction took note of or adopted Calgary's approach.

²⁷ Detailed criteria were not offered for "Sister City" status, though, in the opinion of the IATR organizers, these municipalities have contextual similarities to Calgary and could offer advice to Calgary. In our opinion, the willingness to present at the conference provides an indication that the Sister Cities have reflected on what practices have worked well and other lessons learned, so would make for a desirable case study.



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²⁵ In a top-down approach, we would have started with a list of all municipalities in North America meeting a certain threshold, then would have whittled down the list based on applying multiple criteria.

²⁶ IATR. Who We Are. http://iatr.global/about-iatr

2.1.3 Principles for Selecting Shortlist

Using these four sources of information, we developed a shortlist by applying the principles shown in Figure 2-2. We have termed these elements principles as none of the elements are strictly exclusionary or inclusionary, though collectively help ensure a diverse list that includes municipalities adopting new/innovative practices, include municipalities that are broadly comparable to Calgary, and include municipalities with a mix of key regulatory elements (i.e. open vs. closed system).

It is important to note that because of this non-random sampling approach, it is not possible to provide findings such as "most municipalities in North America are moving towards an open system for taxi licensing." However, through the research, we will seek to uncover the rationale for why certain approaches were or are being pursued.

Figure 2-2: Principles for Selecting Shortlist and Rationale

Principles		Rationale	
Has evidence of recent changes and/or best/effective practices in their regulation.		Recent changes in regulation are often supported by associated reports and debate which provide opportunities to further assess the rationale for the proposed changes.	
2.	Includes a mix of municipalities with limits on the number of taxi and/or TNC licences ("closed system") and municipalities without limits ("open system").		
3.	Includes (but is not limited to) municipalities with similar characteristics to Calgary in terms of population, land area, congestion and transit.	Based on the discussions at the IATR 2019 Conference, many municipal regulators face similar challenges regardless of their specific characteristics (e.g. provision of acceptable level of accessible taxis); however, the scale of the challenge may differ. All else equal, it is preferable to include municipalities with similar population and transportation-system characteristics: • Population and land area: These characteristics may influence the size of the industry and thus to some extent the regulatory approach taken. • Transit: Calgary has an extensive transit system, and there has been significant research into whether TNCs are a complement to or competition for transit. Focusing on municipalities with significant transit as well would thus be more closely comparable to Calgary. • Road congestion: Of significant policy interest in certain municipalities is whether TNCs contribute to road congestion. ²⁸ Thus, the extent to which congestion is already a factor could determine the relative weight given to this policy objective in the comparator municipality.	
4.	Geographic mix and other shortlist diversity factors.	In the US, though the taxi industry is often regulated municipally, most states have passed legislation addressing TNCs. ²⁹ Thus, we did not wish to focus on one state in particular. In addition, we also included Portland as it is located in one of the only states that does not have state laws regulating TNCs.	

Source: CPCS

https://policy.tti.tamu.edu/technology/tnc-legislation/



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²⁸ E.g. San Francisco County Transportation Authority. 2018. TNCs & Congestion: Final Report.

²⁹ As of June 2017, 48 states had passed some form of TNC-related legislation.

Source: TTI. 2017. Transportation Network Company (TNC) Legislation.

2.2 Shortlisted Municipalities

2.2.1 Selection Rationale

Figure 2-3 and Figure 2-4 list the proposed shortlisted Canadian and US municipalities and associated rationale for selection, based primarily on Principles (1) and (2).

Figure 2-3: Canadian Municipalities Shortlisted

Municipality	Rationale				
1. Edmonton	 Based on team experience, Edmonton is the closest comparator to Calgary in terms of economy, geography and regulatory environment. Edmonton was also the first Canadian city to regulate TNCs in 2016.³⁰ 				
2. Mississauga	 Mississauga is a large municipality of approximately comparable municipal population to Calgary. Large international airport within the municipal boundaries, similar to Calgary. In 2019, Mississauga implemented a permanent bylaw to regulate TNCs.³¹ The City of Mississauga was also part of the "Innovative Practices" panel at the IATR conference. 				
3. Montreal	 Based on discussions at the IATR Conference, developing an application programming interface (API) to provide a standardized interface for e-hailing in the taxi industry. At the time this chapter was prepared (September/October 2019), the Government of Quebec was proposing to provincially regulate the vehicle for-hire industry under Bill 17.³² 				
4. Ottawa	 Ottawa has a population approximately comparable to Calgary, as well as a large geographic area. Ottawa is reviewing its existing bylaw including providing flexibility to introduce "soft meters" as well as reviewing availability of accessible taxis.³³ 				
5. Toronto	 In 2019, Toronto amended its Vehicle-for-Hire Bylaw to incorporate additional safety requirements.³⁴ 				
6. Vancouver	BC recently passed legislation allowing TNCs to operate in the province. While there is potential of "circularity", given that the Government of BC could have referred to Calgary's bylaw as one of the last jurisdictions to allow TNCs, there is also potential to assess how they elected to synthesize best practices from existing legislation. ³⁵				

Source: CPCS

³⁵ Bill 55, the *Passenger Transportation Amendment Act*.



³⁰ Bellefontaine, M. 2016. Uber to be legal in Edmonton after city council vote. *CBC News*.

https://www.cbc.ca/news/canada/edmonton/uber-to-be-legal-in-edmonton-after-city-council-vote-1.3422479

³¹ Mississauga.com. Mississauga implements new rules for Uber, Lyft and other ride-hailing apps. https://www.mississauga.com/news-story/9420819-mississauga-implements-new-rules-for-uber-lyft-and-other-

ride-hailing-apps/

32 Assemblée Nationale de Québec. Bill n°17: An Act respecting remunerated passenger transportation by automobile, http://www.assnat.gs.ca/con/travaux.parlomontaires/projets.loi/

³² Assemblée Nationale de Québec. Bill n°17: An Act respecting remunerated passenger transportation by automobile. http://www.assnat.qc.ca/en/travaux-parlementaires/projets-loi/projet-loi-17-42-1.html?appelant=MC

³³ Porter, K. 2019. New meters to give taxi drivers leeway to lower fares. *CBC News*.

https://www.cbc.ca/news/canada/ottawa/ottawa-taxis-soft-meter-discounts-committee-1.5264257

³⁴ City of Toronto. 2019. Vehicle-for-Hire Bylaw Review. https://www.toronto.ca/community-people/get-involved/public-consultations/vehicle-for-hire-bylaw-review/

Figure 2-4: US Municipalities Shortlisted

Municipality	Rationale				
7. Denver	 Denver repealed the need for municipal "Herdic (taxi and limousine)" licences, though state-level regulation exists.³⁶ Significant (municipally controlled) international airport within the jurisdiction. 				
8. Chicago	 Based on team expert input and presentations at the IATR 2019 Conference, there is evidence of significant reflection given to pricing/fees charged to TNCs. Presenter on "Innovative Regulatory Frameworks – The Future of Mobility" at IATR 2019 Conference. 				
9. Houston	 Example of state with state pre-emption of local TNC regulations and ability for airports to impose additional requirements. "Sister City" to Calgary at IATR 2019 Conference with evidence that it has been moving to open the taxi industry, and also have some effective practices (app for industry enforcement).³⁷ 				
10. Los Angeles	 Presenter on "Innovative Regulatory Frameworks – The Future of Mobility" at IATR 2019 Conference. Undergoing a significant review of municipal taxi regulation and moving towards a more "open" model, based on the presentation at the IATR 2019 Conference. Significant recent state-level legislation on driver status (AB5) and accessible vehicles (SB 1376). 				
11. New York City	 New York City is the only jurisdiction in the US and Canada that has put a cap on number of licences available to TNCs, to the knowledge of team members. It has also instituted a higher congestion charge for TNCs as compared to taxis. 				
12. Portland	 No state-level pre-emption of municipal regulation of TNCs, which is unique in the US based on previous team expert research. 				
13. Salt Lake City	 There has been recent deregulation (opening) of the taxi market following the introduction of transportation network companies.³⁸ 				
14. San Francisco	 Significant recent state-level legislation on driver status (AB5) and accessible vehicles (SB 1376). As a city where new technology is introduced early and there is evidence of debate and reform of TNCs, San Francisco may have important insights for this study. 				
15. King County/ Seattle	 King County/Seattle regulate the livery industry in the Seattle metropolitan area through "a cooperative agreement." Cited source indicates that it is a closed system. Significant (>1 million metropolitan population) Western city with rail-based transit. A "Sister City" at the 2019 IATR Conference. 				

Source: CPCS

Based on available information there is a mix of both "open" and "closed" regulatory models for both taxi and TNCs. To our knowledge, New York City is the only jurisdiction that currently has a limit on TNC licences, though multiple municipalities limit taxi licences or have an alternative system (e.g. franchising) for granting

³⁹ Berk et al. 2019. POLICY GUIDE Regulation of Taxi and For-Hire Vehicles.



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³⁶ Herdic License Repeal (Taxi & Limousine). 2017. Excise and Licenses Peak Performance Report May 2017.

³⁷ Downen, R. 2019. City to aid struggling taxi drivers with new rules, lower fees. *Houston Chronicle*. https://www.houstonchronicle.com/news/houston-texas/houston/article/City-to-aid-struggling-taxi-drivers-with-new-14426323.php

³⁸ Davidson, L. 2019. How Uber and Lyft are turning Utah transportation upside down – and taxis, transit and even airport parking are reacting. *Salt Lake City Tribune*. https://www.sltrib.com/news/politics/2019/09/03/how-uber-lyft-are-turning/

taxis operating authorities. In addition, some municipalities have or are moving towards more open systems, including Los Angeles and Salt Lake City.

In addition to Principles (1) and (2), we also reviewed quantitative factors, and ensured a geographic mix, as shown in Figure 2-5. All of the metro areas have populations of at least one million people (as compared to Calgary with 1.5 million) and all, except one municipality, have a significant rail-based transit system. A number of municipalities have levels of congestion similar to Calgary, though some have significantly higher levels (particularly New York, Los Angeles and Vancouver).

With regard to Principle (4), there are some provinces/states where more than one municipality was shortlisted. While this was generally avoided, there are some provinces/states with significant populations and evidence of unique practices in each municipal jurisdiction.



Figure 2-5: Quantitative Comparisons of Shortlisted Municipalities

City	Province/ State	City Land Area (km²)	Central Municipality in Metro Area	Municipal Population (millions)	Metropolitan Area Population (millions)	Availability of Rail Transit	Unlinked Passenger Trips on Light- and Heavy-rail (millions)*	Congestion Index**
Calgary	AB	826	✓	1.2	1.5	✓	91	18%
Edmonton	AB	685	✓	0.9	1.4	✓	39	16%
Mississauga	ON	292		0.7	6.3		N/A	N/A***
Montreal	QC	366	✓	1.7	4.1	✓	383	27%
Ottawa	ON	2,790	✓	0.9	1.4	✓	N/A	27%
Toronto	ON	630	✓	2.7	6.3	✓	481	32%
Vancouver	ВС	115	✓	0.6	2.6	✓	160	38%
Chicago	IL	590	✓	2.7	8.6	✓	230	28%
Denver	СО	396	✓	0.7	2.4	✓	25	22%
Houston	TX	1,553	✓	2.3	4.9	✓	18	23%
Los Angeles	CA	1,214	✓	4.0	12.3	✓	113	41%
New York City	NY	784	✓	8.4	18.4	✓	2,700	36%
Portland	OR	346	✓	0.7	1.8	✓	40	24%
Salt Lake City	UT	288	✓	0.2	1.0	✓	19	17%
San Francisco	CA	121	✓	0.9	3.3	✓	51	34%
Seattle & King County	WA	217	✓	0.7	3.1	✓	23	31%

N/A = not applicable or available. *Based on American Public Transportation Association data. Includes selected other urban rail modes (e.g. "automated guideway"/SkyTrain in Vancouver) on a case-by-case basis. **TomTom Traffic Index, which provides a ratio of congested travel time versus uncongested travel time. ***Not separated from Toronto. Source: CPCS analysis of Statistics Canada, US Census Bureau, and other sources listed.



2.2.2 Other Jurisdictions Not Shortlisted

During the shortlisting process, additional municipalities were identified as being of interest to the project, but were excluded as the shortlisted municipalities appeared to offer more unique practices. In addition, by the nature of research other jurisdictions or practices might emerge through additional research. Any particular practices of note identified opportunistically were documented in Chapter 4.



Comparison of Calgary Livery Regulations with Other Jurisdictions

Key Chapter Takeaway

- This chapter compares dimensions of the livery regulatory framework in Calgary with other jurisdictions, including driver requirements, company requirements, operating conditions, fleet size restrictions, rate setting/pricing, vehicle requirements and safety considerations, licensing and other government fees and data requirements. We summarize selected municipal and provincial/state requirements.
- Some key findings from this comparison include:
 - The City licenses taxi, private or-hire vehicle (PFHV) and limousine drivers directly, and in turn verifies driver eligibility through requirements for criminal background and driving record checks. Some jurisdictions license drivers indirectly; rather, they require taxi and/or transportation network companies (TNCs) to verify driver eligibility.
 - Alberta requires drivers to hold a minimum of a Class 4 licence (i.e. a commercial licence). Most
 jurisdictions do not, except for BC and New York State. Utah previously required a taxicab
 endorsement, but the requirement was removed in 2017.
 - The City limits the number of taxis that can operate, but not the number of PFHVs. Many of the jurisdictions operate under a similar model. New York City is the only jurisdiction in our scan that limits the number of PFHVs. Multiple jurisdictions are planning to remove their cap on taxi licences (e.g. the Province of Quebec and Los Angeles) or indicated that the number of operating vehicles does not reach the limit set.
 - The City's licensing fees are generally within the range charged by other jurisdictions. However, the existing driver licensing fees in Calgary are higher than in most other jurisdictions. Driver licensing fees in other jurisdictions range from zero (none) to about \$729 (equivalent Canadian Dollars); however, the highest fee allows for a longer duration (two- to three-year) licensing period. Calgary's existing licensing fees are \$141-\$229. (Calgary's fee model does provide an alternative fee structure for TNCs in which companies can pay these fees directly.)
 - Calgary's existing vehicle licence fees are also at the high end of the range observed in other jurisdictions.



3.1 Jurisdictional Backgrounds

3.1.1 Regulatory Framework

Key Legislation/Regulation and Selected Definitions

Figure 3-1 presents selected legislation and regulation as it pertains to the livery transportation sector in each jurisdiction, considering both municipal and provincial/state regulation. In Calgary, ride-hailing companies such as Uber, Lyft and TappCar are referred to as transportation network companies (TNCs)⁴⁰ and vehicles operated for those services are referred to as private for-hire vehicles (PFHVs), Limousines have occasionally been shortened to "limos" for brevity. While it does not impact the substance of any regulations, we note that most jurisdictions refer to the sector as "for-hire" vehicles rather than livery.

In Fall 2019, the National Assembly of Quebec passed a bill which sets out a new regulatory framework for livery vehicles. Because a number of matters remain to be set through regulation, Appendix C describes what is known about the regulatory model (rather than completion of the tables).

⁴⁰ Other jurisdictions use different terminology, including private transportation companies (PTCs), transportation network services (TNS) or transportation network provider (TNP).



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Figure 3-1: Selected Legislation and Regulations

	Тахі	TNC/PFHV	Limo		
Calgary	Provincially, the Commercial Vehicle Safety Regulation, 121/2009, <u>Traffic Safety Act</u> , sets out minimum requirements for insurance.	Provincially, the Transportation Network Company Regulation (AR 100/2016), <u>Traffic Safety Act</u> , sets out minimum standards for transportation network company (TNC) insurance and licensing requirements.	Provincially, the Commercial Vehicle Safety Regulation, 121/2009, <u>Traffic Safety Act</u> , sets out minimum requirements for insurance.		
		law (6M2007) regulates driver, vehicle and brokerag	e/TNC licensing for taxis, TNCs and limousines.		
Edmonton	Refer to "Calgary" for applicable provincial-level regulation.				
	,	legulates vehicles for hire, including accessible taxis, li ation network vehicles (TNVs) are the approximate equ			
Vancouver	BC <u>Passenger Transportation Act</u> , <u>Passenger Transportation Regulation</u> govern the taxi, limousine and transportation network services (TNS, similar to TNC/ride-hailing sectors) in BC. Vehicles operating in these sectors are referred to as "passenger-directed vehicles" (PDVs).				
	City of Vancouver: <u>Licence Bylaw 4450</u> defines and regulates "'passenger-directed vehicles' [which mean] taxis, limousines, and vehicles operated under licence held by a transportation network service provider under the <i>Passenger Transportation Act</i> ." The City of Vancouver also has <u>Vehicles for Hire By 6066</u> ; however, a vehicle for hire excludes a passenger-directed vehicle.				
Mississauga					
Toronto City of Toronto Act, 2006 (COTA) enables the City to enact bylaws that " range from public safety to the city's economic, so" ""42			city's economic, social and environmental well-being		
	With respect to drivers and owners of taxicabs, COTA s. 94(1) enables bylaws that (a) establish the rates or fares to be charged, (b) provide for the collection of the rates or fares charged, and (c) limit the number of taxicabs or any class of them.				



⁴¹ https://www.edmonton.ca/business economy/licences permits/vehicle-for-hire.aspx

⁴² Toronto. City of Toronto Act

	Тахі	TNC/PFHV	Limo			
	Toronto Municipal Code Chapter 546, Licensing Vehicles-for-Hire (Vehicle-for-Hire Bylaw) contains the rules and regulations pertaining to the licent operation of taxicabs, limousines and Private Transportation Companies (PTCs). This bylaw, which introduced the PTC class, came into effect July 201 2018, the City launched a review of the Vehicle-for-Hire Bylaw and in June 2019, Municipal Licensing & Standards (ML&S) issued Report for Action Revised containing recommended changes. On July 16, 2019, the City adopted the recommendations and the bylaw is to be amended accordingly. ⁴³					
Ottawa	<u>Vehicle for Hire By-law (By-law No. 2016-272)</u> provides for the regulation, licensing and governing of vehicles for hire in the City of Ottawa, including taxicabs, taxicab drivers, taxicab plate holders, taxicab brokers, limousine services and Private Transportation Companies. Three amendments, while recently enacted, have yet to be consolidated into the main bylaw: By-law No. 2018-162 (service animals); By-law No. 2019-175 (fees); and By-law 2019-335 (inspections, soft meters).					
King County/ Seattle	Multiple Washington State laws govern taxis and "for-hire" companies (see note [*] below): • Chapter 46.72 RCW (Transportation of Passengers in For-Hire Vehicles) • Chapter 81.72 RCW (Taxicab Companies) • Chapter 208-89 WAC There are state-level insurance and permitting requirements, but the regulations also allow for local regulation of the sector. 44 *In these jurisdictions, there is also a category of vehicles known as "for-hire" vehicles, which can also be hailed from the street (like taxis) but charge flat rather than metered fares.	Washington State Chapter 46.72A (Limousines), regulates limousine carriers, including setting out minimum requirements for drivers.				
	Operationally, King County and the City of Seatt municipalities maintain regulatory authority through • King County Code 6.64 • Seattle Code, Chapter 6.310 – Taxicabs and F	their respective municipal codes, in particular:	Seattle Code, Chapter 6.320 — Limousines. In particular, Section 6.320.100 provides that "[t]he Director shall enforce the provisions of this Chapter 6.320 and Chapter 46.72A RCW, provided that there is in effect an agreement between the City and the Washington department of licensing for the enforcement of limousine laws and regulations by the City, duly executed and approved by ordinance."			
Portland	Title 21 Cities – State of Oregon: 221.485 Policy on vehicles for hire & 211.495 Local regulation of vehicles for hire – authorizes cities and counties in the state to grant franchises, to license, control and regulate privately owned taxicabs, limousines and other vehicles for hire that operate within their respective					

⁴³ Toronto. 2019. City Council consideration on July 16 2019, GL6.31. http://app.toronto.ca/tmmis/viewAgendaltemHistory.do?item=2019.GL6.31
⁴⁴ Berk et al. 2019. POLICY GUIDE: POLICY GUIDE Regulation of Taxi and For-Hire Vehicles.



⁴⁵ Multiple reports by Berk et al. (2019) including "SUMMARY REPORT: Regulation of Transportation Network Companies" and "POLICY GUIDE: POLICY GUIDE Regulation of Taxi and For-Hire Vehicles."

	Taxi	TNC/PFHV	Limo
	jurisdictions.		
		r 16.40 Private For-Hire Transportation Regulations – ties, certification requirements and accessible service	
San Francisco	California Government Code, Title 5, Division 2, Part 1, Chapter 1, Article 4 includes authorizing cities and counties to adopt ordinances and resolutions on taxicabs. California Vehicle Code, Division 12, Chapter 5, Article 8 discusses requirements for taxicab signs. Division 11, Chapter 1, Article 3 authorizes local authorities to regulate taxi stands.	California Business Code, Division 7, Part 1, Chapter 7 sets requirements for TNC business licenses in the state. California Public Utilities Code, Division 2, Chapter 8, Article 7 defines requirements for TNC operations in the state. Section 5446 authorizes the City and County of San Francisco to impose a tax on each TNC ride.	California Public Utilities Code, Division 2, Chapter 8 sets requirements for Charter-Party Carriers of Passengers, including limousines.
	The San Francisco Transportation Code, Division II, Article 1100, regulates motor vehicles for hire, namely taxicabs. Article 300 sets fines and fees for taxi operations in the city.	San Francisco Transportation Code, Division II, Article 1200 regulates non-standard vehicles, which includes TNCs.	
Los Angeles	Refer to state-level requirements under "San Francison	co."	
	Los Angeles operates a franchise system (rather than a medallion system) which is set out in Los Angeles code. Los Angeles Taxicab Rules and Regulations of the Board of Taxicab Commissioners sets out " rules and regulations pertaining to the service, safety, and operation of the vehicles; rules and regulations prescribing limitations, conditions and qualifications of applicants for vehicle permits and driver permits; and rules and regulations specifying the monetary penalties that may be assessed against operators and drivers." Based on the cited study and discussions with experts, amendments are expected to move the system towards an open entry model for taxis. 46		
Salt Lake	Taxi operations in Salt Lake City (SLC), which	TNCs are regulated at the state level in accordance	Limousine operations in Salt Lake City (SLC), which

 $^{^{\}rm 46}$ Sam Schwartz. 2019. Draft: LADOT Taxi and For-Hire Vehicle Study.



	Taxi	TNC/PFHV	Limo
City	qualify as Ground Transportation, are regulated by SLC's City Code. Relevant ordinances include Chapters 5.02 and 5.04 (Business Licences), Chapter 5.71 (Ground Transportation Requirements), Chapter 5.72 (Taxicabs), but also Chapter 16.60 (Motor Vehicle Operation) and Chapter 16.64 (Violation Penalty and Enforcement). In addition, taxi operations are also subject to the Salt Lake City International Airport Rules and Regulations regarding Ground Transportation. (Salt Lake City airport is municipally owned.) SLC City Code, c. 5.71.010 (DEFINITIONS): GROUND TRANSPORTATION VEHICLE: Motor vehicle used for the transportation of persons using SLC streets for commercial purposes, regardless of whether a fee or fare is collected. GROUND TRANSPORTATION BUSINESS: Business operating any ground transportation vehicle. GROUND TRANSPORTATION SERVICE: Transportation of passengers by a ground transportation business.	to the Transportation Network Company Registration Act (Utah Code §13-51). TNCs are also subject to the Salt Lake City International Airport Rules and Regulations regarding Ground Transportation (Utah Code §13-51-109) Utah Code §13-51-102 (DEFINITIONS): TRANSPORTATION NETWORK COMPANY is an entity that: (a) uses a software application to connect passengers to drivers providing the services; (b) is not (i) a taxicab as defined in Utah Code c. 53-3-102, or (ii) a motor carrier (as defined in Section 72-9-102; and (c) does not own, control, operate, or manage the vehicle used to provide the transportation network services.	qualify as Ground Transportation, are regulated by SLC's City Code. Relevant ordinances include Chapters 5.02 and 5.04 (Business Licences), Chapter 5.71 (Ground Transportation Requirements), but also Chapter 16.60 (Motor Vehicle Operation) and Chapter 16.64 (Violation Penalty and Enforcement). In addition, limousine operations are also subject to the Salt Lake City International Airport Rules and Regulations regarding Ground Transportation. (Salt Lake City airport is municipally owned.) SLC City Code, c. 5.71.010 (DEFINITIONS): GROUND TRANSPORTATION VEHICLE: Motor vehicle used for the transportation of persons using SLC streets for commercial purposes, regardless of whether a fee or fare is collected. GROUND TRANSPORTATION BUSINESS: Business operating any ground transportation vehicle. GROUND TRANSPORTATION SERVICE: Transportation of passengers by a ground transportation business.
Denver	Motor carriers, including taxis, limousines and TNCs, are regulated at the state level in Colorado and fall under the Colorado Revised Statutes (C.R.S.) in Title 40 (Utilities), Article 10.1 (Motor Carriers), Parts 2-7. Part 2 is Common Carriers and Contract Carriers and includes taxis; Part 3 is Limited Regulation carriers and includes luxury limousines; Part 6 is Transportation Network Companies and vehicles; and Part 7 is Large Market Taxicab Services (LMT). The Public Utilities Commission (PUC), which has regulatory authority over transportation including motor carriers, also publishes rules that implement the aforementioned statutes entitled Rules Regulating Transportation By Motor Vehicle (4 CCR 723-6). LMT are taxi services permitted to operate in selected counties including Denver County and have specific rules, although the General Provisions, Safety Rules and regular Taxicab Service rules also apply. However, unlike regular taxicab services, LMT are not Common Carriers. Further, LMT carriers in certain counties, including Denver, must have a minimum of 25 vehicles for operation in their fleets at all times. (4 CCR 723-6-6000(oo), 4 CCR 723-6-6800, 4 CCR 723-6-6801). Luxury Limousine is a broadly defined category of vehicle and includes stretched limousine, executive car, executive van, luxury 4-wheel drive, collector's vehicle and any motor vehicle for which the carrier paid \$50,000 or more (4 CCR 723-6-6305). Houston, Texas - Code of Ordinances. Chapter 46-VEHICLES FOR HIRE, ARTICLE II TAXICABS and vehicles used to provide digitally prearranged rides; prohibits municipalities and other entities Tex. Occ. Code Ann §2402 (2017) authorizes the state of texas to regulate transportation network companies, drivers logged into a digital network, and vehicles used to provide digitally prearranged rides; prohibits municipalities and other entities		
Chicago	Municipal Code of Chicago, Title 9, Chapter 112,	from regulating. Municipal Code of Chicago, Title 9, Chapter 115,	Municipal Code of Chicago, Title 9, Chapter 114,



	Taxi	TNC/PFHV	Limo
	Taxicabs (The Traffic Code, Chapter 9-112). "'Taxicab' means a vehicle licensed under this chapter for hire at rates of fare set forth in this chapter, which are or should be recorded and indicated by a taximeter." (The Traffic Code, c. 9-112-010). Municipal Code of Chicago, Title 9, Chapter 104, Public Chauffeurs (The Traffic Code, Chapter 9-104). "Public chauffeur" includes "taxi chauffeur" and "restricted chauffeur" (includes limos).	Transportation Network Providers (The Traffic Code, Chapter 9-115). Chicago uses "transportation network provider" (herein TNP), meaning "a person that offers or provides a transportation network service." "Transportation network service" is "a prearranged transportation service offered or provided for compensation using an Internetenabled application or digital platform to connect potential passengers with transportation network drivers." (The Traffic Code, c. 9-115-010).	Public Passenger Vehicles Other Than Taxicabs (The Traffic Code, Chapter 9-114) "Public passenger vehicles included in the provisions of this chapter include, but are not limited to, livery vehicles, charter/sightseeing vehicles, neighborhood electric vehicles, jitney car services, and medical carrier vehicles." "Livery vehicle' means a public passenger vehicle for hire only at a charge or fare for each passenger per trip or for each vehicle per trip fixed by agreement in advance." (The Traffic Code, c. 9-114-010) Municipal Code of Chicago, Title 9, Chapter 104, Public Chauffeurs (The Traffic Code, Chapter 9-104). "Public chauffeur" includes "taxi chauffeur" and "restricted chauffeur" (includes limos).
New York City	Rules of the City of New York (RCNY) Title 35: Taxi and Limousine Commission §58.Medallion Taxicab Service (58-01)(a) To establish the procedures and requirements for obtaining a Taxicab License (b) To establish the rules and regulations for operating a Taxicab (c) To establish the penalties for violating the Rules (cite as 35 RCNY §58).	Rules of the City of New York (RCNY) Title 35: Taxi and Limousine Commission §59. For Hire Service (59A-01)(a) To establish the procedures, rules and requirements for obtaining and maintaining a For-Hire Vehicle License, including: (1) For-Hire Livery Vehicles (2) For-Hire Black Car Vehicles (3) For-Hire Luxury Limousine Vehicles (cite as 35 RCNY §59).	Rules of the City of New York (RCNY) Title 35: Taxi and Limousine Commission §59. For Hire Service (59A-01)(a) To establish the procedures, rules and requirements for obtaining and maintaining a For-Hire Vehicle License, including: (1) For-Hire Livery Vehicles (2) For-Hire Black Car Vehicles (3) For-Hire Luxury Limousine Vehicles (cite as 35 RCNY §59).

Source: CPCS Team based on the sources noted.



Regulatory Jurisdictions and Regulatory Bodies

In all cases, the regulation of the livery sector is shared between multiple levels of government, notably municipalities and provinces/states (Figure 3-2). Even if a province/state does not directly regulate the livery sector, it indirectly regulates the sector such as vehicle operator's licensing, employment law, etc. However, in some of the jurisdictions studied, municipalities have greater authority over regulating the sector, such as Calgary, which regulates taxis, TNCs/PFHVs and limousines. In such instances, the provincial/state government may retain authority over minimum licensing and vehicle insurance requirements. In others, provinces/states have pre-empted most municipal authority to regulate the livery sector (or certain subsectors, such as TNCs), usually with the exception of business licensing and authority to regulate the use of municipal infrastructure.

For the purposes of this review, we have summarized both municipal and provincial/state-level approaches, as effective practices may emerge regardless of which level of government regulates the sector.

Jurisdiction **Primary Regulatory Regulatory Bodies** Jurisdiction Primarily municipal City of Calgary, Livery Transport Services **Calgary** The Province of Alberta sets minimum requirements in certain areas including insurance and aspects of driver and vehicle licensing City of Edmonton Department (Development and Zoning Services, Urban Form Edmonton Primarily *municipal* and Corporate Strategic Development). The Province of Alberta sets minimum requirements in certain areas including insurance and aspects of driver and vehicle licensing BC Ministry of Transportation and Infrastructure (BC MoTI), Registrar, Passenger Vancouver Primarily provincial Transportation Branch and the BC Passenger Transportation Board (BC PTB) "ioint[lv] administer the requirements of the Passenger Transportation Act. The BC PTB in particular makes decisions about special authorizations required to operate "passenger directed vehicles [including] taxis [and] limousines" and "transportation network services,"47 as well as may set rates.48 City of Vancouver can "licence companies and vehicles" and "manage street use and traffic" but "cannot restrict a [p]rovincially licensed company or vehicle from operating in the City."49 Enforcement of the Public Vehicle Licensing By-law Number 420-04 and Mississauga Primarily municipal Transportation Network Company Licensing By-law 0109-2019 is by the City of Mississauga Mobile Licensing Section.

Figure 3-2: Regulatory Jurisdictions and Regulatory Bodies

reduced the role and authority of the City of Vancouver in regulating Passenger Directed Vehicles and TNSs. Key changes are the removal of municipal authority to regulate fleet size and operational boundaries, and vehicle conditions such as maximum age, accessible features or emission standards... Municipalities have retained regulatory authority to issue business licences and to regulate street use. However, municipalities cannot restrict or prohibit a provincially licensed TNS or PDV from operating. For example, the City cannot require TNSs to operate accessible or zero/low emission Passenger Directed Vehicles.

Source: City of Vancouver. 2019. Policy Report: Adapting to Provincial Legislative Changes Related to Passenger Directed Vehicles



⁴⁷ BC PTB. Apply.

⁴⁸ Passenger Transportation Act, s. 7(1)

⁴⁹ Provincial legislative changes in 2019:

Jurisdiction	Primary Regulatory Jurisdiction	Regulatory Bodies
Toronto	Primarily municipal	Vehicle-for-Hire Bylaw enforcement is by the City's <u>Municipal Licensing and Standards</u> (ML&S) division.
Ottawa	Primarily municipal	Vehicle for Hire Bylaw enforcement is by the City's Emergency and Protective Services Department.
King County/ Seattle	Shared state and municipal (county and city)	Washington State: "Washington State Department of Licensing (DOL) requires a license from any individual or business that transports people for a fee in a for-hire vehicle, such as a taxi, cabulance, or any other vehicle used for transporting passengers for payment" Washington State also regulates limousines, but we understand has an agreement with the City of Seattle with respect to enforcement. Wing County Wing County conducts all taxifor him driver related licensing for
		 King County: "King County conducts all taxi/for-hire driver related licensing (on behalf of the County and the City)" City of Seattle: "City of Seattle conducts all taxi/for-hire vehicle licensing (on
		behalf of the City and County)."50 The City of Seattle also enforces some aspects of limousine operations.
Portland	Primarily <i>municipal</i>	 Oregon State: "Cities and counties in this state are authorized to grant franchises, to license, control and regulate privately owned taxicabs, limousines and other vehicles for hire that operate within their respective jurisdictions" (State of Oregon - Title 21 Cities 221.485).
		 City of Portland: "the City of Portland has the authority, delegated by ORS 221.495, to license, control, and regulate privately owned vehicles for hire operating within the City of Portland." (City of Portland - Chapter 16.40.010).
San Francisco	Shared state and municipal (county and city)	 California State: limits "any requirement for a business license imposed by a local jurisdiction" on a TNC driver; "every city or county in which a taxicab company is substantially located [may adopt] an ordinance or resolution in regard to taxicab transportation" (State of California, BPC, Div. 7, Part 1, Chapter 7, 16550).
Los Angeles	Shared state and municipal (county and city)	 "Board of Taxicab Commissioners (the 'Taxicab Commission') and the Los Angeles Department of Transportation ('LADOT'). Anyone wishing to operate a taxicab in Los Angeles must obtain a franchise agreement with the City [of Los Angeles]."51 TNCs are overseen by the California Public Utilities Commission (CPUC).52
Salt Lake City	Shared state and municipal	 Ground Transportation, which includes taxis, limos and some aspects of TNC operations, is overseen at the municipal level by the SLC Ground Transportation department. Business licensing is overseen by the SLC Finance department.
		TNCs are primarily regulated at the state level by the Division of Consumer Protection within Utah's Department of Commerce.
Denver	State level	 Regulation of transportation, including taxis, limousines and TNCs, is at the state level in Colorado by the Public Utilities Commission.
Houston	Shared state and municipal (county and city)	 State of Texas (<u>Tex. Occ. Code Ann §2402 (2017</u>) regulates TNCs including requiring an occupational permit; authorizing a fee. City of Houston governs taxi cabs and limousines. (<u>Houston, Texas - Code of Ordinances</u>. <u>Chapter 46 - VEHICLES FOR HIRE</u>)
Chicago	Primarily municipal	 In the US, state laws usually pre-empt local laws when there is a conflict. With respect to the present study there are two relevant Illinois statutes,

 $^{^{50}}$ Berk et al. 2019. POLICY GUIDE Regulation of Taxi and For-Hire Vehicles.

⁵² https://www.cpuc.ca.gov/tncinfo/



⁵¹ Sam Schwartz. 2019. Draft: LADOT Taxi and For-Hire Vehicle Study.

Jurisdiction	Primary Regulatory Jurisdiction	Regulatory Bodies
		 (625 ILCS 57/) Transportation Network Providers Act and (625 ILCS 55/) Taxi Safety Act of 2007. Under these laws, Chicago may not regulate transportation network providers or taxi operations in a manner that is less restrictive than the regulation by the State. Effectively, then, the primary regulations are those that have been set out in the municipal code as identified in Figure 3-1. City regulatory agency is the Department of Business Affairs and Consumer Protection (BACP).
New York City	Primarily municipal	Though the State of New York has passed statewide legislation governing TNCs (N.Y. V.A.T. Law §44-B), New York City is exempted from this law and enforces its own regulations under the Rules of the City of New York (RCNY) Title 35: Taxi and Limousine Commission, and under Title 19, Chapter 5 of the NYC Administrative Code.

Source: CPCS Team based on the sources noted.

3.1.2 Policy Objectives

Figure 3-3 documents the policy objectives of livery regulation in each jurisdiction. It is important to document these objectives, as it may help contextualize why a jurisdiction is taking a certain regulatory approach. These objectives are taken directly from the legislation or regulation, or from some of the reports that have guided recent or proposed legislation.

Through this review and interviews, we heard numerous jurisdictions express the following core objectives of their regulations:

- Ensuring safety of passengers and drivers
- Consumer protection

In addition, we saw the following other objectives frequently expressed:

- Ensuring accessibility (typically referring to persons with disabilities).
- Contributing to an efficient transportation system and minimizing the impacts from vehicle-for-hire operations, notably congestion and, in some cases, emissions.

While some of the jurisdictions speak to objectives such as enhancing mobility and ensuring service quality, we did not note these objectives to be as emphasized in the discussions with experts. However, some jurisdictions, such as Toronto, have endeavoured to quantify some of the consumer benefits that have occurred following the introductions of TNCs (see Section 4.1.4 in the next chapter).

Interest in "levelling the playing field" between industry participants was also sometimes expressed as motivation in making legislative changes, though not necessarily as policy objective itself. In addition, a number of experts consulted mentioned that "levelling the playing field" between the taxi and TNC does not necessarily imply that regulation would be the same between different sectors. Experts noted that taxis and TNCs have historically different operating models — notably, that taxis can accept street hails and cash payment whereas TNCs cannot — and by extension, the regulatory elements required to achieve core public policy objectives (namely safety and consumer protection) may differ as a result.



Figure 3-3: Stated Objectives of Regulations

Municipality	Stated Objectives
Calgary	"A. to ensure public safety, service quality and consumer protection for customers and service providers in the livery industry; B. to establish a system of licensing Livery Vehicles, Drivers, Brokerages and Transportation Network Companies; (12M2016, 2016 April 04) C. to establish a system for the inspection of Livery Vehicles; D. to create and maintain a sustainable livery industry that considers the interests of service providers and meets the needs of the travelling public in the city; and E. to provide the administrative and regulatory mechanisms to administer a controlled-entry licensing system and ensure sufficient industry supply to meet consumer demand." (Livery Transport Bylaw, Preamble)
Edmonton	"The purpose of this bylaw is to establish a system of licensing and regulation of vehicles for hire." (Bylaw 17400, Vehicle for Hire, s. 1)
Vancouver	BC Passenger Transportation Board: "Policy Principles: 1. The TNS business model is provided with the opportunity to be viable and meet public need for the service 2. Negative impacts on taxi stakeholders associated with the introduction of TNSs should be minimized where possible 3. Policies will be based on defensible research 4. Meaningful consultation with those directly impacted will occur 5. Certainty and transparency will be provided in the resulting policies on sound economic conditions 6. The Board must move to better use of origin / destination and performance indicator data in making decisions and monitoring the impacts of decisions as soon as this data is available."53 City of Vancouver: "On January 15, 2019, Council endorsed a set of seven regulatory principles relating to ride-hailing to guide feedback and input to Provincial consultations on ride-hailing and taxi modernization. They are summarized below: 1. Are regionally coordinated and operate effectively with Metro Vancouver to achieve net positive sustainable transport goals for both the city and region. 2. Prioritize passenger and public safety, companies, drivers and vehicles meet minimum safety standards, and be held accountable for meeting them. Effective enforcement mechanisms and sufficient resources should be in place to ensure compliance. 3. Enhance mobility, complementing transit and active travel, advancing shared mobility and contributing to an efficient and safe transportation system. 4. Enhance accessibility, contributing to a system that maintains or exceeds standards for accessibility and ensures sufficient availability and maintenance of accessibility, contributing to a system that maintains or exceeds standards for accessibility and ensures sufficient availability and maintenance of accessible vehicles. 5. Reduce carbon emissions through company programs and targets that encourage drivers to use hybrid or zero emission vehicles, in order to meet the City's established and emerging carbon reduction goals. 6. Are econom



⁵³ BC Passenger Transportation Board. Introduction of Transportation Network Services, 2019 Operational Policy.

Municipality	Stated Objectives
	living wage.
	7. Provide affordable ride services as part of an enhanced mobility framework." ⁵⁴
Mississauga	 Empowered by and pursuant to the <i>Ontario Municipal Act</i>, 2001, S.O. 2001, the City of Mississauga considers it desirable and necessary to license, regulate and govern owners and drivers of Taxicabs and the business of Taxicab Brokers for the purposes of: Health and Safety, to enhance and encourage safe maintenance and operational practices for Drivers and Owners, ensure experienced and qualified Drivers are providing services, supply passengers with Drivers who have proven themselves to be trustworthy to care for their belongings and their person, and ensure accountability of industry participants for health and safety issues; Consumer Protection, to enhance and encourage equal, fair and courteous treatment of passengers, Drivers, Owners and Brokers, protect the property of passengers, ensure competence of Owners and Drivers in providing Taxicab services, promote accountability, ensure consistency in the application of fares, and support proper and good business practices. Nuisance Control to promote professional behavior, fair dealing amongst participants in the industry, ensure courteous treatment, and limit or mitigate unsightliness, unnecessary noise, nuisance or disruption for passengers, Drivers, Owners, Brokers and the general public. (Public Vehicle Licensing By-law Number 420-04, p. 1).
	Pursuant to the <i>Ontario Municipal Act, 2001</i> , S.O. 2001, which empowers a municipality to pass by-laws respecting the health, safety and well-being of persons and respecting the protection of persons and property including consumer protection through a system of business licenses, the Transportation Network Company Licensing By-law 0109-2019 has been enacted to provide for the ongoing regulation of TNCs (Transportation Network Company Licensing By-law 0109-2019, p. 1).
Toronto	The Vehicle-for-Hire By-law came into effect in July 2016 pursuant to the broad powers accorded to the City government by the <i>City of Toronto Act</i> , 2006 (COTA). These include the power to pass by-laws with respect to, among others, the economic, social and environmental well-being of the city, the health, safety and well-being of persons, the protection of persons and property, and business licensing. ⁵⁵
	The By-law reset and modernized the City's approach to regulating for-hire drivers and vehicles. It responded to the public's request for choice in regulated transportation options and provided an opportunity for the City to shift from prescriptive regulation to a risk-based licensing approach. The transition was rooted in the City's regulatory purpose of ensuring public safety and consumer protection and created the opportunity for competition. ⁵⁶
Ottawa	Empowered by and pursuant to the <i>Ontario Municipal Act</i> , 2001, S.O. 2001, the Vehicle for Hire By-law (By-law No. 2016-272) has been enacted to license taxicabs, taxicab drivers, taxicab plate holders, taxicab brokers, limousine services and Private Transportation Companies for the

City of Vancouver. 2019. Policy Report: Adapting to Provincial Legislative Changes Related to Passenger Directed Vehicles. https://council.vancouver.ca/20191002/documents/cfsc1.pdf



⁵⁵ Toronto. City of Toronto Act

⁵⁶ Toronto. June 21, 2019. Report for Action GL6.31 Revised, p. 1.

Municipality	Stated Objectives
	purposes of ensuring the health and safety of both passengers and drivers, for the protection of persons and property and to ensure consumer protection, and to ensure that efficient vehicle-for-hire services are available to all persons within the City of Ottawa. ⁵⁷
King County/ Seattle	Washington State: "The legislature finds and declares that privately operated for hire transportation service is a vital part of the transportation system within the state. Consequently, the safety, reliability, and stability of privately operated for hire transportation services are matters of statewide importance" (RCW Chapter 46.72.001). Seattle: " Some of its regulatory purposes are to increase the safety, reliability, cost-effectiveness, and the economic viability and stability of privately-operated for-hire vehicle and taxicab services within The City of Seattle." (Seattle Code, Chapter 6.310.100).
Portland	City of Portland: "The purpose of Chapter 16.40 is to provide for the safe, fair, and efficient operation of [private for-hire transportation] PFHT services." (City of Portland Chapter 16.40.10).
San Francisco	California State: "Every city or county in which a taxicab company is substantially located shall protect the public health, safety, and welfare " (State of California, GOV, Title 5, Division 2, Part 1, Chapter 1, 53075.5).
Los Angeles	A report on the direction of taxi and vehicle for-hire regulations in Los Angeles argues that the following guiding principles should be followed: "1. Improving transportation equity and accessibility 2. Traffic congestion reduction and mitigation; emissions reduction 3. Expanding economic opportunities and fostering innovation "50"
Salt Lake City	 5. Leveling the playing field among the various for-hire vehicle sectors" 58 SLC City Code, Chapter 5.71.020 (Ground Transportation Purpose): "This chapter is enacted to provide for and protect the interests of Salt Lake City residents and visitors using ground transportation services, which make use of city streets and other city property, including: A. To reflect standards of professionalism prevalent in and accepted by the Salt Lake community at large; B. To enhance the comfort, ease, and safety of the traveling public on Salt Lake City streets; C. To enhance the city's competitiveness in attracting the traveling public to this city; D. To increase safety for drivers of ground transportation vehicles, their passengers, and the public; E. To adequately identify ground transportation vehicles and their drivers to the public in the city; F. To meet the needs of the public using ground transportation vehicles in the city; G. To provide for uniform enforcement of standards throughout the city by coordinating the efforts of the departments responsible for enforcement, adjudication, and business licensing of all commercial ground transportation businesses and ground transportation vehicles; H. To provide authority for administration and enforcement of business licensing in connection with ground transportation in the city."
Denver	"The commission [PUC] has the authority and duty to prescribe such reasonable rules covering the operations of motor carriers as may be necessary for the effective administration of this article, including rules on [e]nsuring public safety, financial responsibility, consumer

 $^{^{57}}$ Ottawa. September 2016. Vehicle for Hire By-law (By-law No. 2016-272). p. 2. 58 Sam Schwartz. 2019. Draft: LADOT Taxi and For-Hire Vehicle Study.



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Municipality	Stated Objectives
	protection, service quality, and the provision of services to the public" (C.R.S. 40-10.1-106).
Houston	Municipally, customer service and for public safety. No state-level objectives noted in the legislation.
Chicago	Public safety, consumer protection, providing different regulated options for transportation, and accessibility (Source: consultation with City of Chicago, office of Business Affairs and Consumer Protection).
New York City	The New York Taxi and Limousine Commission staff provided the following broad policy objectives that guide the development of and
	justification for regulations: safety, accessibility, consumer protection, congestion, and accountability. (see consultation notes)



3.2 Driver Requirements

Calgary, as well as other jurisdictions, have minimum requirements for drivers, vehicles and companies/brokers operating in the livery sector. This section compares and contrasts driver eligibility requirements for taxi, TNC/PFHV and limousines. In some jurisdictions, these requirements are enforced through driver licensing requirements. Note that there are other licensing requirements related to companies and vehicles, in addition to any requirements in this section.

Legend: How to Read the Following Tables and Other Notes The information from the jurisdictional scan is presented a tabular format. The following figure shows how to read each of these figures. Superscript number – refers to a note TNC/-PFHVx Limox Notesa **Municipality** Taxix **Calgary**¤ 1-In-class-and-on-line-options¶ 2-In-development. Bylaw authorizes City to require training. TNC drivers· currently· receive· "information· guide"· regarding· City· expectations and bylaw requirements. ¶ 3-City-exam-requirement-only.x Not-specifically-required-by-the-bylaw,-though-s.-43(j)-grants-the-Green checkmark -City-Manager-authority-to-"prescribe-driver-training-requirements." requirement is present in X¤ Through-discussions, it-was-noted-that-only-accessible-training-isjurisdiction currently-provided-to-drivers-of-wheelchair-accessible-vehicles,-butthat-is-currently-being-reviewed.-¤ Red X – requirement is **not** present in jurisdiction

Many of the acronyms used in these subsequent tables are introduced in Figure 3-1 and Figure 3-2. Non-legal citation acronyms are documented prior to the Executive Summary as well. In particular, it is worth noting that there are multiple names used for TNCs across jurisdictions, including transportation network services (TNS), transportation network provider (TNP), and private transportation provider (PTC).

While using a tabular approach promotes ease of comparison, because of the structured format, it can also have limitations. For example, if reviewing Figure 3-4 exclusively, a reader may be left with the impression that the Government of BC/City of Vancouver has no requirements with respect to licensing of livery operations. In fact, the Government of BC does have requirements for company licensing with similar intent, but this is accomplished through other mechanisms. We have endeavoured to caveat these limitations. However, readers should not make broad conclusions about the regulatory model in each jurisdiction based on reviewing each table in isolation.

3.2.1 Government-Issued Livery Vehicle Driver's Licence Requirements

This requirement refers to the need for a person to hold an additional licence to operate a livery (for-hire) vehicle, over and above any provincial/state vehicle operator permit required to operate any vehicle. For clarity, in some jurisdictions, this licence is/was called a "for-hire licence" or a "chauffeur's permit." These



licences are/were traditionally issued by municipalities. Separately, in Section 3.2.2, we document whether a provincial- or state-issued commercial driver's licence is required before operating a livery vehicle.

Calgary is a jurisdiction that licenses livery drivers. Several jurisdictions no longer directly license drivers, particularly drivers of PFHV vehicles (Figure 3-5). To the extent licences are required, they are most typically valid for one year, though some jurisdictions allow licences valid for two or three years.

Figure 3-5: Government-Issued Livery Vehicle Driver's Licence Required and Validity Period (Where Noted)

Municipality	Taxi	TNC/ PFHV	Limo	Notes	
Calgary	√ 1 year	√ 1 year	√ 1 year	Renewed <i>annually</i> for all driver types. A person can hold more than one type of livery driver licence.	
Edmonton	√¹ 2 years	X²	√¹ 2 years	 Licences for limos and taxi drivers are valid for one or two years. The application form for prospective drivers appears to provide discretion to the applicant to select the licensing period.^{59 60} Bylaw 17400, s. 4 exempts drivers of TNC vehicles from municipal licensing requirements.⁶¹ 	
Vancouver	x	x	x	Drivers do not require a separate licence to operate livery vehicles. However, according to BC requirements, drivers must meet a number of requirements, including holding a minimum of a Class 4 licence, completing a driving record check, and completing a police record check. ⁶² According to the <i>Passenger Transportation Act</i> , it is then incumbent on the company-licensee to verify that the driver meets the requirements set out for these record checks, upon which the licensee must issue the driver a "record check certificate" (s. 42.2[3]).	
Mississauga	√ ¹ 1 year	Χ²	√ ¹ 1 year	City licence required to: own or operate Airport Municipal Transportation Vehicle or Airport Public Transportation Vehicle; operate as a Broker; own or operate a Limousine; own or operate Accessible Airport Public Transportation Vehicle or Special Accessible Taxicab; own or operate Taxicab (Public Vehicle Licensing By-law, s. 2). "Every license issued to a driver, shall be valid for a period of one year" (Public Vehicle Licensing By-law, Schedule 2). ¹Taxicab, special accessible taxicab and limousine drivers must hold valid Class G Ontario licence (equivalent to a Class 5 licence) (Public Vehicle Licensing By-law, Schedule 8 s. 2.(1)(c), Schedule 7, s. 6.(1), and Schedule 6, s. 10.(1)(a)(iv). ²TNC driver must provide proof of valid driver's licence to TNC (Transportation Network Company Licensing By-law Schedule "A", s. 1.(5)e.).	
Toronto	√ ² 1 year	√ ^{1, 2} 1 year	√ ² 1 year	Each of the following is required to have a licence from ML&S: taxicab owner; vehicle for-hire driver (i.e. taxicab or limousine driver); taxicab operator; taxicab broker; limousine owner; limousine service company; PTC company; PTC driver (Vehicle-for-Hire Bylaw, s. 546-2A). "All licences issued under this chapter shall be valid for one year" (Vehicle-for-Hire Bylaw, s. 546-6). ¹PTC drivers apply to ML&S for a licence through a PTC, not directly. ²Taxicab, limousine and PTC drivers are all required to hold an unrestricted Class G (equivalent to Class 5), or higher, ON driver's licence (Vehicle-for-Hire Bylaw s. 546-	

⁵⁹ If the frequency was not explicitly stated or used terminology which allowed discretion as to frequency (e.g. a background check must be "regularly" conducted) we have indicated "N/A" for "not available". This does not necessarily imply that there are no frequency requirements in the jurisdiction.

https://www2.gov.bc.ca/gov/content/transportation/vehicle-safety-enforcement/services/passenger-transportation/pdv-driver-requirements



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⁶⁰ https://www.edmonton.ca/business economy/documents/Vehicle For Hire Drivers Form.pdf

⁶¹ https://www.edmonton.ca/business_economy/driver-and-vehicle-licensing.aspx_

Municipality	Taxi	TNC/ PFHV	Limo	Notes	
				86A and s. 546-112C).	
√ ¹ 1 year		Χ³	Each of the following requires a licence from the City: standard taxicab driver; accessible taxicab driver; standard taxicab plate holder; accessible taxicab plate holder; taxicab broker; limousine service; auxiliary service; and Private Transportation Company (Vehicle for Hire By-law, s. 3). "Every license issued by the Chief License Inspector shall, unless it is expressed to be for a shorter or longer period of time, be for one (1) year" (Vehicle for Hire By-law, s. 9). 1 Standard and accessible taxicab drivers must hold valid Class G Ontario licence (equivalent to a Class 5 licence) or equivalent Province of Quebec licence (Vehicle for Hire By-law, s. 19 and s. 23). 2 PTC driver must only hold unrestricted Class G Ontario licence or equivalent		
				Province of Quebec licence (Vehicle for Hire By-law, 143.1)a). ³ Limousine driver must only hold valid licence of the appropriate class issued by either the Province of Ontario or Quebec (Vehicle for Hire By-law, 115).	
King County/ Seattle	√ ¹ 1 year	√ ² 1 year	Χ³	¹ "Must obtain a for-hire driver's license through King County" ⁶³ ² A TNC driver must meet the same requirements as a for-hire vehicle driver ("In addition to meeting the for-hire driver standards in this chapter, a transportation network company's driver shall" [emphasis added, King County Code 6.64.665]); however, the permitting process is initiated through the TNC. ⁶⁴ ³ A limousine chauffeur does not require a licence to operate a limousine; however, a limousine carrier must ensure that drivers ("chauffeurs") meet requirements including holding a valid Washington State driver's licence.	
Portland	√ 1 1 year	√ ² 1 year	√ ³ 1 year	¹ "Certifications for Taxi Vehicles provided by the Director shall be valid for a term of 1 year from date of Director certification" (City of Portland Chapter 16.40.110). ² "Certifications for TNC Drivers provided by the Director shall be valid for a term of 1 year from date of Director certification" (City of Portland Chapter 16.40.210). ³ "Certifications for Executive Town Car Vehicles provided by the Director shall be valid for a term of 1 year from date of Director certification" (City of Portland Chapter 16.40.350).	
San Francisco	√ 1 1 year	√ ² 1 year	√ ³ 3 years	¹ San Francisco: "The requirements to obtain a registration certificate and pay a fee shall be suspended for any [TNC or taxi] driver for registration years 2018-2019 and 2019-2020." (ORDINANCE NO. 93-18, SEC. 853). ² State: "Any local jurisdiction that requires a driver to obtain a business license to operate as a driver for a [transportation network company] may only require that driver to obtain a single business license"; SFMTA issues Permits for operation of PTVs. (BPC, Division 7, Part 1, Chapter 7, 16550.2.). ³ State: "The governing body of any city, county, or city and county may not impose a fee on charter-party carriers operating limousines. However, the governing body of any city, county, or city and county may impose a business license fee on, and may adopt and enforce any reasonable rules and regulations pertaining to operations within its boundaries for, any charter-party carrier domiciled or maintaining a business office within that city, county, or city and county" (PUC, Division 2, Chapter 8, Article 2, 5371.4.).	
Los Angeles	√¹ 1 year	X²	x	¹ As cited. ⁶⁵ ² Only business licensing is required.	
Salt Lake City	✓	X	✓	Taxis and limos: As per the City Code, c. 5.71.180 and SLC's International Airport	

 $^{^{63}}$ Berk et al. 2019. POLICY GUIDE Regulation of Taxi and For-Hire Vehicles. 64 Berk et al. 2019. POLICY GUIDE Regulation of Taxi and For-Hire Vehicles.

⁶⁵ Sam Schwartz. 2019. Draft: LADOT Taxi and For-Hire Vehicle Study.



Municipality	Taxi	TNC/ PFHV	Limo	Notes	
	2 years		2 years	Rules and Regulations (Section 4.1), ground transport operators must have a valid Vehicle Operators Badge, which expire after two years.	
Denver	X	Х	х	Minimum driver qualifications prescribe only a valid state issued driver's licence (CCR 723-6-6107, 4 CCR 723-6-6108, 4 CCR 723-6-6708, 4 CCR 723-6-6710).	
Houston	√ 1 N/A	X ^{2, 3}	√ 4 N/A	 ¹ City: The City of Houston requires taxi cab drivers to hold a current and valid vehicle for hire driver's licence issued pursuant to Chapter 46, Article II, Division 1 (Sec. 46-14.). ² State: A TNC driver must maintain a valid driver's licence issued by the state of Texas, another state, or the District of Columbia, (Section 2402.107), and a TNC company must obtain and maintain a permit to operate in the state (Sec. 2402.051). ³ City: Municipalities are prohibited by state law from requiring any other licences or permits of TNCs or drivers (Sec. 2402.003). ⁴ City: The City of Houston requires taxi cab drivers to hold a current and valid vehicle for hire driver's licence issued pursuant to Chapter 46, Article II, Division 1 (Sec. 46-14.). 	
Chicago	√ ¹ 2 years	√ ³ 1 year	√ ² 2 years	The following require a licence from the City (BACP): Chauffeur; Restricted Chauffeur; taxicab; public passenger vehicle; taxicab affiliation, licence manager and licence broker; taxicab two-way dispatch system (unless the person has a taxicab affiliation licence); and transportation network provider, vehicles and drivers. (The Traffic Code, c. 9-112-340 (taxicab affiliation), c. 9-112-440 (taxicab license manager), c.9-112-450 (taxicab license manager), c. 9-112-550 (taxicab two-way dispatch system), and c. 9-115-020 (TNP). In addition, it appears that a person or business that intends to operate a public passenger vehicle (defined in Figure 3-1) requires a licence, in addition to the vehicles themselves requiring licensing. This is not stated directly but can be inferred (See The Traffic Code, c. 9-114-020, c. 9-114-030, c. 9-114-040). 1"Chauffeur" is a driver licensed to drive a taxicab (The Traffic Code, c. 9-112-010). Note: taxicab defined above in Figure 3-1. 2"Restricted Chauffeur" is a driver licensed to drive any public passenger vehicle except a taxicab (The Traffic Code, c. 9-114-010). Note: public passenger vehicle defined above in Figure 3-1. 3 "Transportation network chauffeur" is a driver affiliated with a transportation network provider, or with a person who is so affiliated, and who is licensed to operate a transportation network vehicle (The Traffic Code, c. 9-115-010). Note: TNP driver must possess a valid transportation network chauffeur licence, a restricted chauffeur licence, or a taxi chauffeur licence (The Traffic Code, c. 9-115-050). Chauffeur and restricted chauffeur licence, and TNP licence, generally issued for two years (The Traffic Code, c. 9-104-040(a)). TNP chauffeur licence, and TNP licence, generally issued for one year (The Traffic Code, c. 9-115-040(b) and c. 9-115-150(b)(3)).	
New York City	√1,2,3,4 New: up to 2 years Renew: 3 years	√1,3,4 New: up to 2 years Renew: 3 years	√1,3,4 New: up to 2 years Renew: 3 years	TLC divides their regulations into two regulatory categories: taxi (yellow, metered) and for-hire (livery). Within for-hire, there is a category called "black car", which existed before TNCs came into NYC. This is the regulatory category that TNCs are placed into. All drivers that work for-hire also must have a chauffeur's licence from NY state. ¹ TLC Driver Licence means the authority granted by the Commission to an individual to drive a Taxicab, For-Hire Vehicle or Street Hail in the City of New York. (35 RCNY §51-01). ² No Taxicab can be operated for hire unless the driver has in his or her possession a Valid TLC Driver Licence ((35 RCNY 58-12(d)(1)). ³ A Vehicle Owner must not allow any of its Vehicles to be dispatched unless its driver possesses a Valid TLC Driver Licence. (35 RCNY 59A-11(b)). ⁴Chauffeur's Licence. An Applicant must have a Valid Chauffeur's Licence. ((35 RCNY 80-04(c)).	

N/A = not available. Source: CPCS Team based on the sources noted.



3.2.2 Provincial or State Commercial-level Licence Required

Figure 3-6 shows whether a provincial or state commercial-level driver's licence is required, over and above a driver's licence required to operate a private motor vehicle. In Alberta, they are referred to as Class 1, 2 and 4 licences. The requirements vary across jurisdictions, but a commercial-level licence typically has additional requirements, which may include a higher minimum age, additional knowledge testing, English-language requirements and fitness for duty requirements. Section 4.1.3 (in the next chapter) discusses commercial licensing requirements in more detail.

Most jurisdictions do **not** require a provincial or state commercial driver's licence. However, some jurisdictions do require medical examinations of drivers, which is one of the preconditions of obtaining a Class 4 licence in Alberta.

Municipality Taxi TNC/ Limo Notes **PFHV** Minimum AB Class 4 commercial licence required to be eligible for any City-**Calgary** issued livery driver licence. Edmonton Minimum Class 4 commercial licence required. **√ √** J Minimum Class 4 commercial licence required. Vancouver J Mississauga X X X X X Toronto X Ottawa X X X In Washington State, commercial licence requirements appear to be limited King County/ X X to trucks over a certain weight, school buses and vehicles transporting more X Seattle than 15 people, and vehicles carrying dangerous goods.66 **Portland** X X X San Francisco X X X Los Angeles ¹ Only a "basic, Class C California Driver's License" is required.⁶⁷ However, the X^1 X X report recommends an increase in the minimum age to 21, with one year of driving experience. ¹ Drivers must be 21 years of age or older and have valid driver's licence.⁶⁸ Salt Lake City X^1 X² X1 ² Drivers must have valid driver's licence (Utah Code §13-51-107(1)(ii)). Denver Minimum driver qualifications prescribe only a valid state issued driver's X X X licence (4 CCR 723-6-6107, 4 CCR 723-6-6108, 4 CCR 723-6-6708, 4 CCR 723-6-6710). Houston X X X Taxicab, limo and TNC drivers must possess valid driver's licence for one year, Chicago issued by any state, district or territory of the United States (The Traffic Code, X X X c. 9-104-050 and c. 9-115-150(b)(1)(i)). The NYC Administrative Code and TLC regulations require that all drivers who **New York City** work for-hire must have the vehicle-appropriate licence from the TLC and also 1,3,4,5 1,3,4,5

must have a chauffeur's licence from NY state.

¹TLC Driver Licence means the authority granted by the Commission to an

Figure 3-6: Provincial or State Commercial Licence Required

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⁶⁶ https://www.dol.wa.gov/driverslicense/cdlrequired.html

⁶⁷ Sam Schwartz. 2019. Draft: LADOT Taxi and For-Hire Vehicle Study.

⁶⁸ https://www.slcairport.com/badging/get-a-badge/ground-transportation-drivers/

Municipality	Taxi	TNC/ PFHV	Limo	Notes
				individual to drive a Taxicab, For-Hire Vehicle or Street Hail in the City of New York. (35 RCNY §51-01). No Taxicab can be operated for hire unless the driver has in his or her possession a Valid TLC Driver Licence ((35 RCNY 58-12(d)(1)). A Vehicle Owner must not allow any of its Vehicles to be dispatched unless its driver possesses a Valid TLC Driver Licence. (35 RCNY 59A-11(b)). Chauffeur's Licence. An Applicant must have a Valid Chauffeur's Licence. ((35 RCNY 80-04(c)). Jensey Borner Bo

3.2.3 Eligibility to Work Required

Calgary's Livery Bylaw explicitly requires verification of eligibility to work as part of the licensing process. In general, our scan found that a requirement to verify worker eligibility was not consistently enforced as part of livery regulations analogous to Calgary's bylaw: some jurisdictions specifically required verification of eligibility to work whereas others did not.

However, even if such a requirement was not identified in this scan, it is important to note that other statutes may require companies to verify driver eligibility. There may also be implicit checks within the municipal or provincial/state licensing process due to driver identification requirements. Thus, it was not possible to conclude with certainty whether eligibility to work was or was not enforced.

3.2.4 Criminal Background Check Required

Some form of background check is almost always required by regulatory authorities (Figure 3-7), typically on an annual basis. Most Canadian jurisdictions require a police record information check with a vulnerable record search – designed to protect children and vulnerable people – which in the case of Calgary requires the submission of fingerprints by applicants.⁶⁹ There is a wider variety of practices used in the US: some jurisdictions allow third-party providers to verify criminal records and some do not require fingerprints. However, there is significant debate in the US as to whether this is an acceptable practice. Given that livery drivers may transport vulnerable people, Calgary's approach appears to be in line with generally recognized Canadian practice.

To the extent we were able to confirm renewal frequencies through the literature review, most jurisdictions studied required a new background check at licence renewal (which is typically annually) or annually.

⁶⁹ Calgary Police Service. Police Information Checks. https://www.calgary.ca/cps/Pages/Public-services/Police-information-checks.aspx



Figure 3-7: Criminal Background Check Required and Frequency

Municipality	Taxi	TNC/ PFHV	Limo	Notes
Calgary	✓ At licence renewal	√¹ At licence renewal	✓ At licence renewal	Calgary Police background check with (vulnerable sector check [for new applications]) required to apply for or renew City driver licence. ¹ AB regulations require TNCs to ensure drivers have had background checks.
Edmonton	✓ At licence renewal	✓¹ At licence renewal	At licence renewal	Police background check required to apply for or renew City driver licence (s. 30[d]). ¹ AB regulations require TNCs to ensure drivers have had background checks. In Edmonton, these are not required by the municipality.
Vancouver	√ Annually	√ Annually	√ Annually	"All [passenger directed vehicle] operators are required to obtain a Police Record Check with a Vulnerable Sector Check" which must be provided annually . This must be done through the RCMP or a municipal police department. ⁷⁰
Mississauga	√ Annually	√ Annually	✓ Annually	Taxicab, special accessible taxicab and limousine drivers must submit certificate of criminal record search (Public Vehicle Licensing By-law, Schedule 8 s. 2.(1)(d), Schedule 7, s. 6.(1), and Schedule 6, s. 2.1(1)(a) and s. 10.(1)(a)(v)). TNC, upon licence application or renewal, must affirm that its drivers have provided the required criminal record check (Transportation Network Company Licensing By-law s. 1.(5)a.).
Toronto	√ Annually	√ Annually	√ Annually	<u>Criminal Record and Judicial Matters Check</u> required for application or renewal of all licences issued by ML&S. Further, all licences issued by ML&S are valid for one year (Vehicle-for-Hire Bylaw, s. 546-6(A.)).
Ottawa	√ Annually	✓¹ Required prior to startup. Annual declaration thereafter.	√ Annually	Taxi and accessible taxi drivers must, upon application and renewal, provide results of a Police Record Check for service with the Vulnerable Sector (Vehicle for Hire By-law s. 19.1)d, s. 20.2) b), s. 23.1), s. 24)). Limousine drivers must provide annually to the limousine service company results of a Police Record Check for service with the Vulnerable Sector (Vehicle for Hire By-law s. 105.1(c)). Every licence issued under the Vehicle for Hire By-law is for one year, unless it is stated to be otherwise (Vehicle for Hire By-law, s. 9). 1 PTC drivers must provide to the PTC, upon commencement of service, results of Police Record Check for service with the Vulnerable Sector. Also, prior to commencement and annually, must provide signed declaration confirming there are no pending criminal charges or warrants (Vehicle for Hire By-law s. 143.1) b) and d). Yearly declaration of no outstanding criminal code charges or warrants.
King County	√ ¹	√ ¹	√ ²	¹ "Background checks may either be 1) conducted with fingerprints

https://web.mississauga.ca/services-and-programs/business/licences-and-permits/mobile-business-licensing/limousines/



https://www2.gov.bc.ca/gov/content/transportation/vehicle-safety-enforcement/services/passenger-transportation/pdv-driver-requirements

https://web.mississauga.ca/services-and-programs/business/licences-and-permits/mobile-business-licensing/taxicabs/

⁷² TNC licenses are valid for one year and TNC must ensure drivers have a current acceptable criminal record (Bylaw, s. 11 and s. 1.(5)(a).

Municipality	Taxi	TNC/ PFHV	Limo	Notes
	At licence renewal	At licence renewal	Mini- mum freq- uency not stated	forwarded to the FBI and Washington State Patrol (WSP) or 2) conducted by an approved third-party vendor." ⁷⁴ Fingerprinting not required upon renewal. ⁷⁵ ² Limousine carriers must conduct a background check of drivers by "Washington state patrol or [an approved] credentialing authority" (RCW 46.72A.090).
Portland	√ At licence renewal	√ At licence renewal	√ At licence renewal	 "A local, national criminal background check and driving history review of all drivers shall be conducted annually on behalf of the affiliated [company] by a third party accredited by the National Association of Professional Background Screeners" Multi-state/multi-jurisdiction criminal records locator or other similar commercial nationwide database with validation (primary source search); All motor vehicle records associated with the applicant driver available pursuant to record laws of each state, and The National Sex Offender Public Registry. (City of Portland Chapter 16.40.170, 16.40.270, 16.40.370)
San Francisco	√ N/A	√ N/A	X¹	State: "A transportation network company shall conduct, or have a third party conduct, a local and national criminal background check for each participating driver that shall include both of the following: • The use of a multistate and multijurisdiction criminal records locator or other similar commercial nationwide database with validation. • A search of the United States Department of Justice National Sex Offender Public Web site." (PUC, Division 2, Chapter 8m Article 7, 5445.2) City: "The applicant shall provide such information and documents as the SFMTA requires, which may include a physical examination, a practical examination and/or background check of the applicant and any applicable Application Fee" (Transportation Code, Division 2, Article 1100, SEC. 1103) ¹Based on the results of the literature scan, we do not see any requirement for a criminal background check as part of Rules And Regulations Governing the Operations of Charter-Party Carriers of Passengers Pursuant to Chapter 8 Of Division 2 of the Public Utilities Code (Beginning With Section 5351).
Los Angeles	✓¹ At licence renewal	√ ² N/A	X³	¹ As cited. ⁷⁶ ² See state requirements under San Francisco. ³ See note 1 above under San Francisco.
Salt Lake City	√ Required upon	√ Upon startup	√ Required upon	Taxis and limos: to obtain a Vehicle Operators Badge, drivers must complete an FBI fingerprint background check and a TSA security threat assessment. Also, any outstanding warrants must be resolved. ⁷⁷

 $^{^{74}}$ Berk et al. 2019. POLICY GUIDE Regulation of Taxi and For-Hire Vehicles.

⁷⁷ https://www.slcairport.com/badging/get-a-badge/ground-transportation-drivers/



^{75 &}lt;a href="https://www.kingcounty.gov/depts/records-licensing/licensing/taxi-for-hire-transportation-networks/driver/driver-application-process.aspx">https://www.kingcounty.gov/depts/records-licensing/licensing/taxi-for-hire-transportation-networks/driver/driver-application-process.aspx

⁷⁶ Sam Schwartz. 2019. Draft: LADOT Taxi and For-Hire Vehicle Study.

Municipality	Тахі	TNC/ PFHV	Limo	Notes
	appli- cation. Required upon renewal if Badge has expired.		appli- cation. Required upon renewal if Badge has expired.	Under certain conditions, background check information may be transferred to a new badge upon renewal. ⁷⁸ TNC must require the driver to consent to a criminal background check by the TNC or the TNC's designee (Utah Code §13-51-107(1)(b)).
Denver	At application and at least every 5 years	At application and at least every 5 years	√1 At application and at least every 5 years	¹ Fingerprint-based criminal history record check required to become qualified to drive, and at least every five years thereafter. Required to drive for Taxicab, Large Market Taxicab Service and Limited Regulation carriers. Drivers pay the costs. (4 CCR 723-6-6114). ² Criminal history record (not fingerprint-based) check required to become qualified as a TNC driver and at least every five years thereafter. TNC must obtain and review the criminal history. (4 CCR 723-6-6712).
Houston	√ 1 N/A	√ ² N/A	√ 1 N/A	¹ City: requires the criminal history of each applicant for vehicle for hire licence (for taxi or limousine) to be researched (Sec. 46-7). ² State: A TNC must: (2) conduct, or cause to be conducted, a local, state, and national criminal background check for the individual that includes the use of: (A) a commercial multistate and multi-jurisdiction criminal records locator or other similar commercial nationwide database; and (B) the national sex offender public website maintained by the United States Department of Justice or a successor agency; (Sec. 2402.107).
Chicago	Biennial at licence appli- cation or renewal	Annually at licence appli- cation or renewal	Biennial at licence application or renewal	Required as part of application (new or renewal) for a public chauffeur licence (The Traffic Code, c. 9-104-050(15) and c. 9-104-070 (b)) "Public chauffeur license" means taxi chauffeur license or restricted chauffeur licence (includes limo drivers) (The Traffic Code, 9-104-010). Required as part of application (new or renewal) for a transportation network chauffeur licence. TNP must perform the check and attest that the driver meets the licence requirements. (The Traffic Code, c. 9-115-150(b)(1)(v) and c. 9-115-150(b)(2)). TNP also required to perform quarterly audits to ensure compliance, and may be required to perform quarterly random checks. (The Traffic Code, c. 9-115-150(j)).
New York City	√ 1 N/A	√ ² N/A	√ ² N/A	1 "An individual or all Business Entity Persons of a Business Entity applying for a Taxicab License must be fingerprinted and must be of good moral character. Fingerprinting for the purpose of investigating good moral character is also required of the following, unless waived by the Chairperson in his or her discretion" (City of New York §58D-04). 2 "An individual or all Limited Business Entity Persons of a Business Entity applying for a High-Volume For-Hire Service License must be fingerprinted for the purpose of obtaining criminal history records." (City of New York §59D-04).

N/A = not applicable or available. Source: CPCS Team based on the sources noted.



⁷⁸ https://www.slcairport.com/badging/badging-faq/

3.2.5 Driver Record Check Required

Almost all jurisdictions require a driver record check as a condition of being eligible to drive any for-hire vehicle (Figure 3-8). Most jurisdictions require the record check to be verified annually or on licence renewal.

Figure 3-8: Drivers Record Check Required

	Figure 3-8: Drivers Record Check Required						
Municipality	Taxi	TNC/ PFHV	Limo	Notes			
Calgary	✓ At licence renewal	✓ At licence renewal	✓ At licence renewal	Driver record checked upon application for or renewal of licence (up to 9 demerits allowed).			
Edmonton	X	X	X	No requirements observed in the bylaw. In addition, the "Driver and Vehicle Licensing" webpage makes no mention of licensing requiring a drivers abstract. ⁷⁹			
Vancouver	√ Annually	√ Annually	√ Annually	Record check certificates, which are granted subject to a satisfactory driving record and police record check, expire annually (Passenger Transportation Regulations, s. 12.69).			
Mississauga	√ Annually	√ Annually	√ Annually	Taxicab, special accessible taxicab and limousine drivers must submit upon application and renewal a driver's abstract (Public Vehicle Licensing By-law, Schedule 8 s. 2.(1)(e), Schedule 7, s. 6.(1), and Schedule 6, s. 2.1(1)(b) and s. 10.(1)(a)(v)). TNC, upon licence application or renewal, must affirm that its drivers have provided the required driver's abstract and meet the requirements (Transportation Network Company Licensing By-law, Schedule "A", s. 1.(5)c., Schedule "B", s.1.(2)).			
Toronto	√ Annually	√ Annually	√ Annually	Must supply Ministry of Transportation Driver Record Abstract (three year driving history) upon application for or renewal of licence. ⁸⁰			
Ottawa	√ Annually	√ Annually	√ Annually	Taxi and accessible taxi drivers must, upon application and renewal, provide the required provincial Statement of Driving Record issued by either Ontario or Québec. (Vehicle for Hire By-law s. 19.1)e, s. 20.2) b), s. 23.1), s. 24). Limousine drivers must provide annually to the limousine service company an acceptable Statement of Driving Record (Vehicle for Hire By-law s. 105.1)c)). PTC drivers must provide to the PTC, upon commencement of service and annually, an acceptable Statement of Driving Record issued by either Ontario or Québec. (Vehicle for Hire By-law s. 143.1) c).			
King County/ Seattle	√ 1 Annually	√ 1 Annually	√² N/A	¹ "Required at initial application and annually. May be provided by Washington State Department of Licensing (driver abstract) or by an approved third-party vendor." ⁸¹ ² Required according to RCW 46.72A.090.			
Portland	✓ At licence renewal	✓ At licence renewal	✓ At licence renewal	"A local, national criminal background check and driving history review of all drivers shall be conducted annually on behalf of the affiliated [company] by a third party accredited by the National			

⁷⁹ https://www.edmonton.ca/business_economy/driver-and-vehicle-licensing.aspx

⁸¹ Berk et al. 2019. POLICY GUIDE Regulation of Taxi and For-Hire Vehicles.



⁸⁰ Screening criterion: "Accumulated nine or more demerit points on his or her driving record abstract at the time the application for a licence or renewal is made." See Toronto, Taxicab or Limousine Driver (Vehicle-for-Hire Driver), op. cit. and Toronto, Drivers for Private Transportation Companies, https://www.toronto.ca/servicespayments/permits-licences-bylaws/private-transportation-companies-uberfacedrive-drivers/drivers-for-privatetransportation-companies/.

Municipality	Тахі	TNC/ PFHV	Limo	Notes
				Association of Professional Background Screeners"
San Francisco	√ ¹ N/A	√ 1 N/A	√ ² N/A	¹ State: "a TNC is eligible to participate and shall participate in the pull-notice system to regularly check the driving records of a participating driver regardless of whether the participating driver is an employee or an independent contractor of the TNC."; (PUC, Division 2, Chapter 8, Article 7, 5444). For further clarity, it appears the state Department of Motor Vehicles can provide frequent updates on motor vehicle violations to companies. "A permitted taxicab company shall participate in the pull-notice program to regularly check the driving records of all taxicab drivers, whether employees or contractors" (GOV, Title 5, Division 2, Part 1, Chapter 1, Article 4, 53075.5). ² State: "applicant participates in a program to regularly check the driving records of all persons, whether employees or subcarriers, operating vehicles used in transportation for compensation" (PUC, Division 2, Chapter 8, Article 2, 5374).
Los Angeles	✓1 At licence renewal	√ ² N/A	√ ² N/A	¹ As cited. ⁸² ² See San Francisco requirements.
Salt Lake City	х	On applying to become a TNC driver	х	Other than checking the validity of the driver's licence (see Figure 3-6), a check of the driver history does not appear to be required. TNC must obtain and review a report of the individual's driving history (Utah Code §13-51-107(1)(c)).
Denver	√ Annually	√ Annually	√ Annually	Driver record check required to become qualified to drive, and at least once every 12 months thereafter. Required to drive for any Motor Carrier or TNC. Motor Carrier or TNC must obtain and review the driver history. (4 CCR 723-6-6107(c), 4 CCR 723-6-6711).
Houston	X	√ 1 N/A	X	¹ State: (A) a TNC must (3) obtain and review the individual's driving record. (Sec. 2402.107).
Chicago	Biennial at licence application or renewal	Annually at licence appli- cation or renewal	Biennial at licence application or renewal	Required as part of application (new or renewal) for a public chauffeur licence (The Traffic Code, c. 9-104-050(13), c. 9-104-050(4) and c. 9-104-070 (e)) "Public chauffeur license" means taxi chauffeur licence or restricted chauffeur licence (includes limo drivers). (The Traffic Code, 9-104-010). Required as part of application (new or renewal) for a transportation network chauffeur licence. TNP must perform the check and attest that the driver meets the licence requirements. (The Traffic Code, c. 9-115-150(b)(1)(iii) and c. 9-115-150(b)(2)).
New York City	√1	√1	√1	¹ "An Applicant whose driver's license has been issued by a state

⁸² Sam Schwartz. 2019. Draft: LADOT Taxi and For-Hire Vehicle Study.



Municipality	Taxi	TNC/ PFHV	Limo	Notes
	N/A	N/A	N/A	other than New York or who has held a driver's license issued by a state other than New York within the two years prior to the date of the Application, must provide the Commission with an abstract of his or her driving record from the state that issued the Applicant's driver's license, dated no more than 90 days prior to the date of the Application, covering at least the two years prior to the date of the Application" (City of New York §80-04).

N/A = not available. Source: CPCS Team based on the sources noted.

3.2.6 Driver Training Required

Figure 3-9 shows whether the jurisdictions studied have minimum training requirements, beyond those required for a standard driver's licence. There are mixed requirements for training in the jurisdictions cited. As well, in some cases, training may be administered by the regulatory body. In most cases, the regulatory body mandates third-party training or that companies provide training. Section 4.1.2 (in the next chapter) further discusses considerations around training.

Figure 3-9: Training Requirements

Municipality	Taxi	TNC/ PFHV	Limo	Notes
Calgary	√ 1	X²	Χ³	 ¹ In-class and on-line options ² In development. Bylaw authorizes City to require training. TNC drivers currently receive "information guide" regarding City expectations and bylaw requirements. ³ City exam requirement only.
Edmonton	x	x	x	Not specifically required by the bylaw, though s. 43(i) grants the City Manager authority to "prescribe driver training requirements." Through discussions, it was noted that only accessible training is currently provided to drivers of wheelchair accessible vehicles, but that is currently being reviewed.
Vancouver	х	x	x	No additional training is required beyond the requirements of a Class 4 licence; however, if "Registrar of Passenger Transportation [at BC MoTI] determine[s] that additional driver training is necessary for drivers of passenger directed vehicles, the Registrar has the authority to set these requirements."83
Mississauga	√	X	✓	In response to a complaint, City Licence Manager may require a taxicab or limousine driver to continue holding or to renew a licence, to complete a Taxicab Driver Orientation, Sensitivity, or Defensive Driving course, or demonstrate proficiency in English (Public Vehicle Licensing By-law, s. 12.(7)). Airport transportation vehicle drivers must, upon licence application and every five years, complete training courses in Sensitivity, Defensive Driving and Robbery Prevention (Public Vehicle Licensing By-law, Schedule 3, s. 1.(1)(c)(d)(e) and s. 5.(3)(4)(6); Schedule 4, s. 1.(1)(c)(d)(e) and s. 5.(3)(4)(6)). TNC need only ensure that driver training is available for its drivers on use of the TNC App (Transportation Network Company Licensing By-law, Schedule B, s. 5.(1)).
Toronto	X	X	Х	The current Vehicle-for-Hire Bylaw refers to training being required

https://www2.gov.bc.ca/gov/content/transportation/vehicle-safety-enforcement/services/passenger-transportation/pdv-driver-requirements



Municipality	Taxi	TNC/ PFHV	Limo	Notes
				only with respect to accessible vehicle service (vehicles serving persons with disabilities). However, ML&S has made recommendations proposing a new accessibility strategy as well as new mandatory training requirements for all drivers. ⁸⁴
Ottawa	√	X	X	Standard taxicab driver licence requires, upon application but not renewal, completion of Accessible Taxicab Training Course (Vehicle for Hire By-law s. 19.(1)(f) and s. 20.(2)(b)). Accessible taxicab driver licence requires upon application, completion of Accessible Taxicab Training Course (Vehicle for Hire By-law s. 23 and s. 24).
King County/ Seattle	√ 1	√ 1	√ ²	¹ Upon initial licensing, applicants must pass a locally administered "For-Hire Examination" and a four-hour online defensive driving course. ⁸⁵ ² Required per RCW <u>46.72A.090</u> .
Portland	√ Within 30 days	✓ Within 30 days	✓ Within 30 days	"The affiliated company must ensure that all [for-hire] Drivers successfully complete all Director-approved trainings and testing within 30 days of certification and successfully complete any additional training and testing within 30 days of release by the Director." (City of Portland Chapter 16.40.110, 16.40.120, 16.40.310)
San Francisco	√ 1	√ ² Within 30 days	√ 3	¹ State: "A permitted taxicab company shall maintain a safety education and training program in effect for all taxicab drivers, maintain a disabled access education and training program to instruct its taxicab drivers on compliance with the federal Americans with Disabilities Act of 1990" (GOV, Title 5, Division 2, Part 1, Chapter 1, Article 4, 53075.5). City: "Demonstrate that he or she has successfully completed a Driver Training Course for new [taxicab] Drivers" (Transportation Code, Division II, Article 1100, SEC. 1103). ² City: "A description or copy of Applicant's training policies and procedures for drivers, including any training related to the provision of accessible service to people with disabilities; (Transportation Code, Division II, Article 1200, SEC. 1203) "Permittees shall certify that all PTV drivers have viewed the SFMTA Large Vehicle Urban Driving Safety Video and have completed any other safety training required by the SFMTA at the time of permit issuance," (Transportation Code, Division II, Article 1200, SEC. 1207). State: "TNCs must establish a driver training program to ensure that all drivers are safely operating the vehicle prior to the driver being able to offer service." (State of California Public Utilities Commission: Basic Information for Transportation Network Companies and Applicants). ³ State: "applicant has a safety education and training program in effect for all employees or subcarriers operating vehicles used in transportation for compensation." (PUC, Division 2, Chapter 8, Article 2, 5374)
Los Angeles	√¹ At licence	√ ²	√ ³	$^{ m 1}$ Taxi companies are required to provide drivers training covering navigation, driver safety, defensive driver, behind-the-wheel driver

⁸⁴ Report for Action GL6.31, op. cit.

^{85 &}lt;a href="https://www.kingcounty.gov/depts/records-licensing/licensing/taxi-for-hire-transportation-networks/driver/driver-application-process.aspx">https://www.kingcounty.gov/depts/records-licensing/licensing/taxi-for-hire-transportation-networks/driver-application-process.aspx



Municipality	Taxi	TNC/ PFHV	Limo	Notes
	renewal			training, accessible vehicle operation and CPR certification (for accessible-vehicle drivers). Additional state requirements include safety education and training, as well as training on the "Americans with Disabilities Act and state disability rights laws, including making clear that it is illegal to decline to serve a person with a disability or who has a service animal."86 ² TNCs are required to establish a driver training program. ⁸⁷ ³ Same as San Francisco.
Salt Lake City	√	X	✓	Taxis and limos: Drivers must complete the Ground Transportation driver computer-based training without assistance within the first three attempts (https://slcairport.com/ground-transportation/assets/pdfdocuments/GT-Drivers-Publication-May-2019.pdf).
Denver	x	x	X	No mention of a requirement for driver training in the regulatory rules, even with respect to accessibility.
Houston	√ ¹	X	X	¹ Each permittee who first receives a permit and each licensee who receives a licence after September 4, 2019, shall attend an accessibility <i>training</i> course designated by regulation of the director (Sec.46-19).
Chicago	✓	✓	✓	Public chauffeur licence applicant (includes taxis, limos) must complete approved training course unless deemed unnecessary (The Traffic Code, c. 9-104-050(5). Traffic Code authorizes BACP to make agreements with schools or entities that provide training, including specifying curriculum and cost. BACP may also provide financial assistance to taxi chauffeur applicants (The Traffic Code, c. 9-104-090 and c. 9-104-100). TNP drivers must complete online or in-person approved TNP driver training program annually as part of licence issuance or renewal. Program must include providing service to persons with disabilities. (The Traffic Code, c. 9-115-150(b)(1)(iv).
New York City	√ 1 Within 90 days	√ 1 Within 90 days	√1 Within 90 days	¹ "The Commission requires that Applicants complete the required courses and pass all prescribed tests, both oral and written, as administered by the Commission or at its direction." Includes Defensive Driving Course, Authorized Driver Education Training, Authorized Licence Renewal Course, Wheelchair Passenger Assistance Training, and Sex Trafficking Awareness Training" (City of New York §80-04).

3.2.7 Drug and Alcohol Requirements

In general, Canadian jurisdictions, including Calgary, prohibit drivers consuming and/or being under the influence of drugs and alcohol while operating a livery vehicle, though do not prescribe testing requirements. In BC, the *Passenger Transportation Act* shifts the onus for these requirements to the livery companies. S. 7(1)(b) of the BC *Passenger Transportation Act* states: "A licensee or permit holder must ensure that the driver of a commercial passenger vehicle operated under the licence or permit . . . is not, at any time while operating the commercial passenger vehicle, under the influence of any intoxicating liquor or drugs." However, through the course of the review, we did not identify any management systems prescribed to meet this requirement.

⁸⁷ California Public Utilities Commission. Basic information for Transportation Network Companies and Applicants.



⁸⁶ Sam Schwartz. 2019. Draft: LADOT Taxi and For-Hire Vehicle Study.

By comparison, in the US, several jurisdictions have more specific requirements, including New York and Los Angeles. For example, the Los Angeles Taxicab Rules, s. 601 stipulates that prospective drivers submit "an approved controlled substance test result or program certificate current to within 30 days" during the application process and s. 223 requires "each taxicab operator shall be responsible for verifying enrollment of its permitted drivers in a controlled substance and alcohol testing program with pre-permitting, annual and random test requirements."

However, our informed (but non-legal) understanding is that Canadian law, at least under an employeremployee relationship, only provides for "limited circumstance" in which randomized drug and alcohol testing is permitted:

where the employer is able to show that there is a demonstrated alcohol or drug abuse problem amongst employees in safety-sensitive positions in the workplace and testing is a proportionate response (in other words when potential safety benefits outweigh potential intrusion into employee privacy) and when the employer still meets its duty to accommodate employees who test positive.⁸⁸

Many drivers are considered independent contractors, though there is at least one ongoing legal case in Canada with the intent of challenging this classification. Nonetheless, given the potential considerations around driver privacy, any further implementation of requirements in this area would need to be subject to legal review.

3.2.8 Insurance Requirement

Minimum insurance requirements in Alberta are set through provincial regulation:

- <u>Commercial Vehicle Certificate and Insurance Regulation (AR 314/2002)</u>, for taxis and limousines, which require between \$1 million and \$2 million in liability coverage, depending on the number of passengers.
- <u>Alberta Transportation Network Companies Regulation (AR 100/2016)</u>, for TNCs, which requires \$1 million
 in coverage for drivers logged into the app, and \$2 million in liability coverage when en route to or
 with a passenger.

Alberta requirements generally align or exceed requirements in other jurisdictions, though some jurisdictions in Ontario consistently require \$2 million automobile third-party liability coverage and \$5 million in commercial general liability insurance. Most jurisdictions typically require a minimum of \$1 million (CAD or USD) in coverage per occurrence, though some jurisdictions in the US only have coverage requirements in the low hundreds of thousands of dollars.

3.2.9 Other Requirements Affecting Drivers

Maximum Hours of Service

During the IATR Conference, as well through anecdotal reports, there have been concerns expressed regarding the long hours of service of livery drivers.⁸⁹ Calgary's bylaw (s. 86[a]) requires that "a Driver other than a Transportation Network Driver ... shall have eight consecutive hours off duty in any twenty-four hour

⁸⁹ Rodino-Colocino, Michelle. 2019. Uber drivers report 80-plus hour workweeks and a lot of waiting. https://theconversation.com/uber-drivers-report-80-plus-hour-workweeks-and-a-lot-of-waiting-115782



Government of Canada. Workplace impairment questions and answers. https://www.canada.ca/en/employment-social-development/services/health-safety/cannabis-workplace/questions-answers.html

period." A number of jurisdictions have maximum hours of service requirements for drivers. However, it is noted through discussions with The City that these requirements are difficult to enforce.

BC's requirements appear to be particularly robust in terms of requiring both transportation companies and drivers to maintain records. In particular, new requirements in BC require that TNS licensees apply for a National Safety Code operating certificate, and in turn meet National Safety Code requirements for:

- "Hiring and monitoring drivers
- Monitoring hours of service
- Ensuring vehicle maintenance"90

BC's requirements for maintenance of a Class 4 driver's licence also have record keeping requirements – see discussion in Section 4.1.3 in the next chapter.

Medical Examinations

A few jurisdictions require drivers to undergo medical exams before licensing. BC requires a driver's medical form to be completed by a physician before being eligible to receive a Class 4 licence. Certain conditions may prohibit a driver from obtaining a Class 4 licence. Interviews also identified that Colorado is one state that requires a medical examination of drivers by a qualified medical professional before being allowed to operate on the TNC network (4 CCR 7236-6713). Alberta also requires a medical report from a physician to upgrade to a Class 4 licence. 92

3.3 Company Requirements

3.3.1 Company Licence Required (Brokerage, TNC, etc.)

Figure 3-10 summarizes company licensing requirements in the jurisdictions studied. Every jurisdiction under study required some form of company licensing. However, in the US, in some cases company licensing was state-level for certain subsectors (notably TNCs and/or limousines), rather than municipal.

Municipality Taxi TNC/ Limo **Notes PFHV** Taxi/limo brokerages and TNCs require City licence to operate. Calgary 1 **√** ✓ Bylaw 17400, s. 4. Edmonton 1 1 1 ¹ Taxis companies require a "special authorization" licence to operate a "passenger Vancouver **√**¹ **√**3 **J**² directed vehicle.93 ² TNCs in BC require a "special authorization" to operate "passenger directed

Figure 3-10: Company Licence Required

⁹³ Passenger Transportation Board. I want to start a new taxi service.



⁹⁰ BC Ministry of Transportation and Infrastructure. Apply for a Transportation Network Service Licence. https://www2.gov.bc.ca/gov/content/transportation/vehicle-safety-enforcement/services/passenger-transportation/transportation-network-services/apply-tns-licence

⁹¹ Insurance Corporation of BC. Driver's medical exams. https://www.icbc.com/driver-licensing/re-exam/Pages/Drivers-medical-exam.aspx

⁹² Upgrade to a commercial licence

Municipality	Taxi	TNC/ PFHV	Limo	Notes
				vehicles" in BC and, more specifically, a "transportation network services authorization." These companies also require municipal business licences in Vancouver. 3 Limousine companies operating vehicles with 11 or fewer passenger seats or with primarily perimeter seating must obtain a "special authorization."
Mississauga	✓	✓	✓	City licence required to: own or operate Airport Municipal Transportation Vehicle or Airport Public Transportation Vehicle; operate as a Broker; own or operate a Limousine; own or operate Accessible Airport Public Transportation Vehicle or Special Accessible Taxicab; own or operate Taxicab; own or operate a TNC. (Public Vehicle Licensing By-law, s. 2 and Transportation Network Company Licensing By-law s. 4.(1)).
Toronto	√	√	✓	Each of the following is required to have a licence from ML&S: taxicab owner; vehicle-for-hire driver (i.e. taxicab or limousine driver); taxicab operator; taxicab broker; limousine owner; limousine service company; PTC company; PTC driver (Vehicle-for-Hire Bylaw, s. 546-2A).
Ottawa	√	√	✓	Each of the following requires a licence from the City: standard taxicab driver; accessible taxicab driver; standard taxicab plate holder; accessible taxicab plate holder; taxicab broker; limousine service; auxiliary service; and Private Transportation Company (Vehicle for Hire By-law, s. 3).
King County/ Seattle	√ 1	√1	√ ²	¹ Seattle and King County licence required. ² State law requires limousine carriers to obtain a licence, as well as a licence for each vehicle (<i>RCW 46.72A.050</i>).
Portland	√ 1	√ ²	√ 3	1 "the City requires that proof of a Taxi Driver's business license" (City of Portland Chapter 16.40.160). "All Taxi Drivers operating as independent contractors affiliated with a Taxi Company shall comply with all provisions of the Business License Law, Chapter 7.02, prior to operating a Taxi Vehicle." (City of Portland 16.40.170). 2 "the City requires proof of TNC insurance and proof of a TNC driver's business license be kept in every TNC Vehicle." (City of Portland Chapter 16.40.260). All TNC Drivers affiliated with a TNC shall comply with all provisions of the Business License Law, Chapter 7.02, prior to being activated on the TNC app. (City of Portland 16.40.270). 3 "A copy of the business license is required for every driver operating as an independent contractor." (City of Portland Chapter 16.40.360). "All Executive Town Car Drivers operating as independent contractors affiliated with an Executive Town Car Company shall comply with all provisions of the Business License Law as required by Chapter 7.02 prior to operating an Executive Town Car Vehicle" (City of Portland Chapter 16.40.370).
San Francisco	√ ¹	√ ²	√3	¹ City requires a business licence to operate (Transportation Code, Division II, Article 1100, Sec. 1103). ² "The driver shall obtain a business license in the local jurisdiction in which the driver is domiciled. If the local jurisdiction does not require a business license to operate as a driver for a transportation network company, the driver shall not be required to obtain a business license for any other jurisdiction." (BPC, Division 7, Part 1, Chapter 7, 16550.2). ³ "the governing body of any city, county, or city and county may impose a business license fee on, and may adopt and enforce any reasonable rules and regulations pertaining to operations within its boundaries for, any charter-party carrier

⁹⁴ BC MoTI and BC Passenger Transportation Board. Transportation Network Services Application Package (Ride Hailing). https://www.ptboard.bc.ca/documents/PTBoard 9005%20Application%20Pkg.pdf

⁹⁵ Passenger Transportation Board. I want to start a new limousine service.



Municipality	Taxi	TNC/ PFHV	Limo	Notes
				domiciled or maintaining a business office within that city, county, or city and county" (PUC, Division 2, Chapter 8, Article 2, 5371.4).
Los Angeles	√ 1	√ ²	√ ²	¹ Taxis currently operate under a franchise model, but is expected to change. Based on the Los Angeles Department of Transportation Taxi and For-Hire Vehicle Study, taxi company licensing will be maintained in some form, noting that a recommendation of the study is that LADOT should be able to "control market entry and vehicle supply through permitting companies, vehicles, and drivers, including certain basic requirements such as a minimum number of vehicles in a permitted fleet." ⁹⁶ ² A permit through the California Public Utilities Commission is required. ⁹⁷
Salt Lake City	✓	✓	✓	Taxis and limos: Must register company name with the Utah State Department of Commerce and then secure an SLC Business Licence for providing Ground Transportation Service (SLC City Code, 5.02 and 5.04). TNCs: Must register with the Division of Consumer Protection within Utah's Department of Commerce. Annual application fee is \$5,000 (non-refundable) (https://dcp.utah.gov/downloads/transportation network company app.pdf).
Denver	√ 1,2	√ 4	√ 3	¹ Taxicab Carriers require a Certificate of Public Convenience and Necessity. In particular, applications are required to prove operational, managerial and financial fitness (4 CCR 723-6-6203(a)(XI)), and to prove a public need for the proposed service and that the authority requested is in the public interest (4 CCR 723-6-6203(a)(XVII)). ² LMT operating authority requires only that the carrier: has the prescribed minimum number of vehicles in its fleet; provides proof of required insurance; files a schedule of its rates (which may be at or below the maximums allowed); proves its vehicles have met the inspection requirements; and has paid the required vehicle identification fees (4 CCR 723-6-6803 and 4 CCR 723-6-6008). ³ Carriers must obtain a Permit which requires submitting: proof of the required insurance; payment of the required vehicle identification fees; proof of the necessary vehicle inspections and other vehicle information required (4 CCR 723-6-6302). ⁴ TNCs must obtain a Permit which requires filing the prescribed application (includes attesting to meeting specified fare disclosure, driver and vehicle requirements, and providing service in a nondiscriminatory manner ⁹⁸), payment of the annual fee, and proof of the required insurance (4 CCR 723-6-6702(b), § 40-10.1-604, C.R.S.).
Houston	√ 1	√ ²	√ ³	¹ Permits, issued by the city of Houston are required in order to operate a taxicab or service (Sec. 46-62.). ² TNCs are required to obtain a permit from the Texas Department of Licensing and Regulation (TDLR, the agency that enforces the state law); and pay the fee, set by TDLR. (Sec. 2402.051, 2402.052.) ³ Permits, issued by the city of Houston are required in order to operate a limousine or service (Sec. 46-231.).
Chicago	✓	✓	√	The following require a license from the City (BACP): Chauffeur; Restricted Chauffer; taxicab; public passenger vehicle; taxicab affiliation, license manager and license broker; taxicab two-way dispatch system (unless the person has a taxicab affiliation license); and transportation network provider, vehicle and driver. (The Traffic Code, c. 9-112-340 (taxicab affiliation), c. 9-112-440 (taxicab license

⁹⁶ Sam Schwartz. 2019. Draft: LADOT Taxi and For-Hire Vehicle Study.

⁹⁸ Colorado Public Utilities Commission. Application to Operate as a Transportation Network Company ("TNC"). https://drive.google.com/file/d/0B3u7jb_duOQ2WENJaUtSbXZSXzQ/view



⁹⁷ California Public Utilities Commission. Basic Information for Transportation Network Companies and Applicants.

Municipality	Taxi	TNC/ PFHV	Limo	Notes
				manager), c.9-112-450 (taxicab license manager), c. 9-112-550 (taxicab two-way dispatch system), and c. 9-115-020 (TNP). In addition, it appears that a person or business that intends to operate a public passenger vehicle (defined in Figure 3-1) requires a licence, in addition to the vehicles themselves requiring licensing. This is not stated directly but can be inferred (See The Traffic Code, c. 9-114-020, c. 9-114-030, c. 9-114-040).
New York City	√ 1	√ ²	√ 3	^{1 2} City requires a business licence to operate (City of New York §58-04, §59A-04, §59B-04).

3.4 Operating Conditions

3.4.1 Street Hails Permitted

Figure 3-11 summarizes whether street hails are permitted. In the jurisdictions studied, only taxis are permitted to pick up passengers who hail a ride from the street (with a few exceptions, usually in specific locations such as airports).

Though the issue was not comprehensively discussed with all experts, one Canadian expert noted that they conducted inspections where an enforcement officer posed as a passenger looking for a ride (e.g. with baggage, etc.) to assess whether TNC drivers would attempt to solicit a trip on the street. The expert noted that they did not have "issues" with TNC drivers picking up passengers through street hails (not arranged through the app) and indicated that the TNC(s) stuck to their business model (and only performed app hailed trips). However, the discussion highlighted that regulators had interest in enforcing compliance with street hail restrictions.

Municipality Taxi TNC/ Limo Notes **PFHV** X1 ¹ Airport curb side excepted but with only flat rates Calgary X Edmonton **√** X X Vancouver In general, limited only to taxis, unless otherwise approved by the Passenger X X Transportation Board, according to Passenger Transportation Board Operational Policy OP III.7 Hailing from the Street (PDVs).¹⁰⁰ Hailing not specifically mentioned in the Public Vehicle Licensing By-law and, as Mississauga such, is allowed for taxis. The market for hails is, however, very limited in Mississauga, as is the use of taxi stands. TNC drivers specifically prohibited from accepting hail requests (Transportation X X Network Company Licensing By-law, Schedule B, s.2.(2)). Driver of limousine may not hold himself out as being available for hire in any public place, may only pick a Fare that is pre-arranged, and may not pick up a Fare within 60 metres of a designated Taxicab Stand (Public vehicle Licensing By-law, s. 11.(2)(4)(5)).

Figure 3-11: Street Hails Permitted

¹⁰⁰ Also clarified in Passenger Transportation Board guidance document "Passenger Transportation Act Authorizations (PDV & TNS)".



⁹⁹ The discussion did not provide an exact number, if any, of PFHV drivers who attempted off-app pick-ups.

Municipality	Taxi	TNC/ PFHV	Limo	Notes
Toronto	✓	х	x	Taxicab, by definition, provides transportation at a taxicab stand or in response to street hails, among other service requests (Vehicle-for-Hire Bylaw s. 546-1). Hails, or solicitation, not permitted either on the street or at a taxicab stand for PTCs or PTC drivers (Vehicle-for-Hire Bylaw s. 546-110 and 546-112). Appears not permitted as limousine service must be pre-arranged (Vehicle-for-Hire Bylaw s. 546-79).
Ottawa	√	x	x	Hailing not specifically mentioned in the Public Vehicle Licensing By-law and, as such, is allowed for taxis. "Limousine service" specifically defined as a pre-arranged service, and must be arranged at least 2 hours in advance. (Vehicle for Hire By-law, Part 1, s.1, and Part III, s. 104.(1)a)). PTC drivers may not solicit or accept requests unless pre-arranged using the app of the PTC with which they are affiliated. Street hails or picking up fares at taxi stands prohibited. (Vehicle for Hire By-law, Part IV, s. 137 and s. 148).
King County/ Seattle	✓1	X¹	X ²	¹ As per cited source. ¹⁰¹ ² Seattle Code Chapter 6.320.020 precludes street hails, though there are exceptions for stands in "port districts". State law also requires "pre-arrangement" of limousine trips. ¹⁰²
Portland	√ 1	X²	X³	 1 "A Taxi Driver may accept street-hails in all locations including the following locations: taxi stands, hotel zones, and loading/unloading zones" (City of Portland Chapter 16.40.180). 2 "A TNC Driver shall accept rides only booked through an affiliated TNC app and shall not solicit or accept street-hails or stop in any City-approved taxi zones" (City of Portland Chapter 16.40.280). 3 "An Executive Town Car Driver may not accept street-hails received within in the City of Portland, with the exception of designated hotel zones and as approved by the Port of Portland at the Portland International Airport" (City of Portland Chapter 16.40.380).
San Francisco	√ 1	X²	x	State: 1"Any city or county may adopt operating requirements for taxicab companies and taxicab drivers that limits on the number of taxicab companies that may use taxi stand areas or pickup street hails If a city or county chooses to limit the number of taxis that use the stand areas or pick up street hails, the city or county shall identify those vehicles with a window sticker and shall not establish additional requirements or costs." (GOV, Title 5, Division 2, Part 1, Chapter 1, Article 4, 53075.51). ² "The following requirements shall apply to transportation network company insurance from the moment a participating driver accepts a ride request on the transportation network company's online-enabled application or platform until the driver completes the transaction on the online-enabled application or platform or until the ride is complete" (PUC, Division 2, Chapter 8, Article 7, 5433).
Los Angeles	1	X ¹	Х	¹ TNCs are defined by the California Public Utilities Commission as providing "pre- arranged" services only. ¹⁰³ Only taxis may arrange a trip "at the curb." ¹⁰⁴
Salt Lake City	√	Х	See note ¹	Taxis: "Any person may hail a taxicab for service within the city" (SLC City Code,

¹⁰¹ Berk et al. 2019. POLICY GUIDE Regulation of Taxi and For-Hire Vehicles.

¹⁰⁴ California Public Utilities Commission. Application – Instructions and Information: Charter-Party Carrier of Passengers.



¹⁰² State of Washington, Business Licensing Services. Obtaining Your Limousine Carrier License and Vehicle Certificates

¹⁰³ California Public Utilities Commission. 2013. Decision Adopting Rules and Regulations to Protect Public Safety While Allowing New Entrants to the Transportation Industry, Decision 13-09-045.

Municipality	Taxi	TNC/ PFHV	Limo	Notes
				5.72.455). TNCs: Provide "prearranged rides" only (Transportation Network Company Registration Act, 13-51-102). ¹ Not explicitly noted in the review, though, at the airport (which is a high source of traffic), no explicit restrictions.
Denver	√	х	х	Luxury Limousine Service by definition is pre-arranged service established in a contract prior to providing the service (4 CCR 723-6-6301(e)). TNC drivers prohibited from soliciting or accepting on-demand summoning of a ride "otherwise known as a 'street hail.'" (4 CCR 723-6-6723(g).
Houston	√1	X ²	Χ³	¹ Customers may select taxi of their choice from any place in the city (Sec. 46.25) ² TNC drivers may only solicit or provide digitally prearranged rides (Sec. 2402.108) ³ Limo drivers may not solicit customers in any public place (must operate out of their principal place of business (Sec. 46.241).
Chicago	√ 1	X²	Χ³	¹ The Traffic Code Chapter 9-112 (Taxicabs) is silent on street hails and taxi stands. These are, however, permitted. ¹⁰⁵ ² Expressly prohibited under The Traffic Code, c. 9-115-180(e). Use of taxi stands is also prohibited as TNP vehicles may only be used to provide prearranged service (The Traffic Code, c. 9-115-180(d) and c. 9-115-180(f). 3 " no passenger shall be accepted for any trip in such a vehicle [livery vehicle] without previous engagement for such trip, at a fixed charge or fare, through the station or office from which said vehicle is operated." (The Traffic Code, c.9-114-280).
New York City	✓	X	Х	NYC Administrative Code.19-504 No Motor vehicle other than a duly licensed taxicab shall be permitted to accept hails from passengers in the street. (§ 19-504).

3.4.2 On-street Taxi Stand Access

Based on our review, in general only taxis were granted access to on-street stands, given that they are the only class of vehicle allowed to accept hailed trips. Because it is largely duplicative of Section 3.4.1, and in some cases this could only be inferred, we have not included a full comparison table.

The review did identify certain exceptions. For example, limousines in San Francisco were allowed to park at a limousine stand during certain areas during certain times of the year. A special permit was required for vehicles to do so.¹⁰⁶

3.4.3 Special Event-related Staging Area Access

Some of the jurisdictions reviewed recognized the need to regulate access to certain areas to address issues of congestion, including passenger congestion. For example, the BC Passenger Transportation Board's Operational Policy for the Introduction of Transportation Network Services, 2019 states:

TNSs operating in the City of Vancouver (in Region 1 above) must geo-fence off the areas listed below in (a) to (c) on cruise ship days to prevent drivers from picking up passengers: (a) Canada Place Way between Howe Street and Burrard Street; (b) Howe Street between Canada Place Way and Cordova Street; and (c) Burrard

¹⁰⁶ San Francisco, Business and Tax Regulations Code, Article 2, § 129)



See, e.g., Taxi Fare Finder (October 24, 2013), Chicago – Tips for Taking a Taxi, https://www.taxifarefinder.com/newsroom/2013/10/24/chicago-tips-for-taking-a-taxi/

Street between Canada Place Way and Cordova Street. The Board will post a link to the city's cruise ship schedule, when available, in March or April of any year.

In addition, the Los Angeles Taxi and For-Hire Vehicle Study is recommending "If a licensed taxi company wants to access the airports, transit hubs, taxi stands at high volume locations (i.e., stadiums, arenas), or designated bus or HOV lanes, then they would need a special permit from LADOT." ¹⁰⁷

In other words, the latest legislation and analysis of the subject has implemented/recommended reinforcing regulatory authority for access to special events. This is further discussed under Section 4.1.4.

3.4.4 Cash Payment Permitted

Out of taxis and TNC/PFHV, in most other jurisdictions, only taxis (which often had additional requirements for cameras, etc.) were allowed to accept cash payments (Figure 3-12). In general, other bylaws defined TNCs as requiring payment though an app. With respect to limousines, laws in question were often silent on whether they could accept cash.

In some jurisdictions (e.g. BC), there are restrictions on who could accept payment through an app: a taxi could not accept payment through an app under its existing licence. However, in BC, taxis were not precluded from applying for a TNS special authorization, which grants permission to accept payment through an app. This approach appears to be in part motivated as the BC Passenger Transportation Board has further required apps as a condition of licensing TNSs in BC.¹⁰⁸

¹⁰⁸ Supplementary Terms & Conditions Respecting TNSA Apps



¹⁰⁷ Sam Schwartz. 2019. Draft: LADOT Taxi and For-Hire Vehicle Study.

Figure 3-12: Cash Payment Allowed

Municipality	Taxi	TNC/	Limo	Notes
widincipancy	Idal	PFHV	Lillio	Notes
Calgary	√ ¹	X ²	Χ³	 ¹ Cash or electronic payment permitted. ² Cash payment can be accepted where a camera has been installed and approved by The City. ³ Cash payment can be accepted for airport curbside pick-ups, or where a camera has been installed and approved by The City.
Edmonton	√	√	√	Edmonton's bylaw does not speak explicitly to method of payment.
Vancouver	✓	х	√	Inherent in the definition of a TNS (TNC) in BC is that payment is through an app (Passenger Transportation Act, s. 1).
Mississauga	✓	x	✓	Drivers of Airport Municipal Transportation Vehicles, Airport Public Transportation Vehicles, Limousines and Taxicabs not required to provide change for any note larger than \$20 unless the Fare is at least one-half the value of said note (Schedule 3, s. 4.(9), Schedule 4, s. 4.(9), Schedule 6, s. 12.(9), and Schedule 8, s. 5.(9)). A TNC by definition is compensated through an app or other comparable technology.
Toronto	√	х	✓	Taxicab driver must have at least \$20 in coins and bills in denominations of less than \$20 to provide change (Vehicle-for-Hire Bylaw, s. 546-19.(G.)). Vehicle for Hire Bylaw is silent on payment for limousine service and, as such, cash is allowed. 109 PTC by definition is compensated through an app or other comparable technology.
Ottawa	√	x	✓	Standard and accessible taxicab drivers obliged to accept payment in cash (Canadian or US currency). Public Vehicle Licensing By-law is silent on payment for limousine service and, as such, cash is allowed. 110 PTCs and drivers not permitted to accept payment by cash (Vehicle for Hire Bylaw, s. 38.(10), Part IV, s. 148(6)).
King County/ Seattle	√	х	✓	Payments for TNC services may only be made through an app. Laws dealing with limousines do not appear to have the same restrictions, but are explicitly silent on the issue.
Portland	No explicit restrictions on cash payments			"Drivers must use a company-approved device at all times to calculate fares and process payments. A company-approved device must be Payment Card Industry (PCI) compliant If the primary company-approved device is inoperable, drivers may use a secondary company-approved device. If no such system exists, the driver must cease providing PFHT services until the company-approved device is operable." (City of Portland Chapter 16.40.925).
San Francisco	√	х	No explicit restric- tions on cash pay- ments	"[Taxi] drivers shall carry sufficient cash to be able to provide change for [\$26.51 (US\$20)]." (Transportation Code, Division II, Article 1100, Sec. 1108).
Los Angeles	✓	X	X	

¹⁰⁹ Some limousine services advertise that they accept cash, see e.g. Exclusive Limousines at https://www.torontoexclusivelimo.com/.

¹¹⁰ Some limousine services advertise that they accept cash, see e.g. Liberty at https://www.liberty-limousine.ca/SERVICES/.



Municipality	Taxi	TNC/ PFHV	Limo	Notes
Salt Lake City	✓	x	✓	TNCs: "A transportation network driver may not, while providing transportation network services solicit or accept cash payments from a passenger" (Transportation Network Company Registration Act, 13-51-105).
Denver	√ 1,2	x	√ ²	¹ Common Carriers may accept any form of payment, but must accept MasterCard and Visa credit cards (4 CCR -723-6-6213). ² "Motor Carriers and Drivers [excludes TNCs] are prohibited from imposing a surcharge on any Passenger or customer who uses a credit or charge card in lieu of payment by cash" (4 CCR 723-6-6014). As is true everywhere the business model of TNCs is such that it relies on the ride arranged and payment effected through the TNC's app or digital network.
Houston	√ 1	√ ²	No explicit restric- tions on cash pay- ments	¹ Ordinance is silent on cash payment, only requiring the taxis allow payment by credit card (Sec. 46-33). ² TNC statute is silent on method of payment but states that drivers may only provide rides to people with whom they have been matched through a digital network which, it can be inferred, does not offer cash as payment method (Sec. 2402.108).
Chicago	√ 1	х	√ ²	¹ Cash is allowed. The Traffic Code provides, e.g., that a driver can charge a customer a convenience fee for non-cash payment, or the regulator can issue rules necessary to regulate the payment of fares, including cash. (The Traffic Code, c. 9-112-600(a), c. 9-112-510). ² The Traffic Code is silent regarding cash payment. However, cash payment is possible if service is booked over the telephone, while service booked online is not payable by cash. ¹¹¹
New York City	√ ¹	No explicit restrictions on cash payments		¹ Cash is allowed. "If a Taxicab or Street Hail Livery customer's effort to pay by debit/credit card at the end of the trip is prevented not by the Vehicle's Technology System, but because the communication network is unable to process debit/credit card payments at that time, the Driver must offer the customer the option of either paying cash or having the Driver continue to a location where the wireless payment system can communicate with its network (City of New York §80-17).

3.5 Fleet Size Restrictions

3.5.1 Limit on Number of Vehicles

Most of the jurisdictions scanned are similar to Calgary in that there are limits ("caps") on the total number of licences that can be issued for taxis, but no caps on TNC PFHV licences. To our knowledge, New York City is the only jurisdiction in Canada or the US that has capped the total number of TNC vehicle licences that can be issue. The cap temporarily (for one year) restricts any increases in the number of licensed drivers that can operate in New York City. 112

Honan, K. 2019. New York City Extends Cap on Uber, Lyft Drivers. *Wall Street Journal*. https://www.wsj.com/articles/new-york-city-extends-cap-on-uber-lyft-drivers-11565215462



Confirmed via telephone conversation with American Coach Limousine https://www.americancoachlimousine.com/services/

Figure 3-13: Maximum Limit on the Number of Vehicles

Municipality	Taxi	TNC/ PFHV	Limo	Notes
Calgary	✓	X	X	Controlled-entry system for taxis; population formula used to help determine if/when more plates are needed.
Edmonton	✓	X	X	Up to 1,235 taxi licences and 95 accessible taxi licences (Bylaw 17400, s. 23)
Vancouver	See note ¹	X²	See note ³	¹ Maximum company fleet sizes are still a licensing condition for taxis, ¹¹³ though taxi companies may apply for a TNS authorization. There is no explicit limit on the aggregate number of taxi licences in the province, however in BC taxis are regulated under a "public convenience and necessity regime (PC&N). Although on the surface it appears to be a regime ruled by reason and based on public need for a new service, it places a significant barrier to new entrants as they must battle competitors in a quasi-judicial forum." ¹¹⁴ ² According to the BC Passenger Transportation Board's, Introduction of Transportation Network Services, 2019 Operational Policy. ³ Similar to taxis, applicants must demonstrate a public need for new limousine services. ¹¹⁵
Mississauga	√	х	х	Airport Municipal Transportation Vehicles, Airport Public Transportation Vehicles, Airport Accessible Public Transportation Vehicles and Taxicabs all have limits on numbers of owner's licences issued; Taxicab owner's licences limited to 706, determined by Plate Issuance Formula in Schedule 13 (Public Vehicle Licensing By-law, Schedule 3, s. 11, Schedule 4, s. 10, Schedule 8, s. 15.(1) and s.15.(2). No Taxicab Owner issued more than 12 Taxicab Owner's Licences (Public Vehicle Licensing By-law, Schedule 8, s.15.(3)). Each Taxicab Brokerage issued 2 Special Accessible Taxicab Owner's Licences (Public Vehicle Licensing By-law, Schedule 7, s.2.(1)).
Toronto	√	х	х	Number of taxicabs restricted to ~5,000. PTC licences not capped; ~70,000 have been issued. 116
Ottawa	√	х	х	Maximum combined number of standard and accessible taxi plate holder licences limited to one licence for every 806 residents (Vehicle for Hire By-law, s. 34).
King County/ Seattle	√	Х	Х	In 2018, there were 1,048 taxi medallions and 471 for-hire vehicle medallions. 117 Some licences restrict vehicles from operating in King County or Seattle.
Portland	X ¹	Х	Х	¹ "A minimum fleet of 15 Taxi Vehicles." (City of Portland Chapter 16.40.140).
San Francisco	✓	х	х	Must hold a medallion to operate a taxi in the city (Transportation Code, Division II, Article 1100, Sec. 1103).
Los Angeles	X¹	x	x	¹ Currently taxis in Los Angeles operate under a franchise model; however, Los Angeles is proposing to move towards a controlled entry model, which would remove restrictions on the number of vehicles that could be operated. ¹¹⁸
Salt Lake City	x	x	x	Taxis and limos: Ground transportation services can be provided by anyone who meets the operating requirements (https://slcairport.com/ground-transportation/operating-requirements/). TNCs: No limits set by the <i>Transportation Network Company Registration Act</i> .
Denver	X	X	X	There do not appear to be limits on the numbers of vehicles permitted. Denver,

 $^{^{113}}$ Passenger Transportation Board. Passenger Transportation Act Authorizations (PDV & TNS).

¹¹⁸ Sam Schwartz. 2019. Draft: LADOT Taxi and For-Hire Vehicle Study.



¹¹⁴ Hara Associates. 2018. Modernizing Taxi Regulation.

 $^{^{\}rm 115}$ Passenger Transportation Board. I want to start a new limousine service

Urban Analytics Institute. June 2019. Regulating Vehicles-for-Hire in Toronto. https://urbananalyticsinstitute.com/wp-content/uploads/2019/06/UAI VFH Report June-2019.pdf.

¹¹⁷ Berk et al. 2019. POLICY GUIDE Regulation of Taxi and For-Hire Vehicles.

Municipality	Taxi	TNC/ PFHV	Limo	Notes
				regulated by the Colorado PUC, appears to be pretty much an open market. While ordinary Taxicab Service still requires a Certificate of Public Convenience and Necessity, entry restrictions on LMT services (created to "level the playing field") and TNCs are minimal (see Figure 3-10). Notables: To serve Denver, an LMT carrier must have in its fleet at all times at least 25 vehicles (4 CCR 723-6-6802). Any authorized Taxicab Service may convert to a TNC company model, or may set up a subsidiary or affiliate TNC company (§ 40-10.1-605(n) C.R.S.). The PUC must issue a Permit to each TNC that meets the requirements and pays the annual permit fee (§ 40-10.1-606(2) C.R.S.).
Houston	√1	X ²	х	 City of Houston controls issuance and re-distribution of surrendered permits; limit on number of permits is inferred in Sec. 46-64. ² TDLR will issue permits to all eligible, paying applicants (Sec. 2402.051).
Chicago	1	х	х	Cap on number of taxicab medallions is 6,999, but this has never been reached (Source: consultation with City of Chicago, office of Business Affairs and Consumer Protection).
New York City	√ 1	√ ²	√ 3	¹ Must own a Taxicab Medallion ² "The New York City Council voted on [August 8, 2018] in favor of a cap on the number of for-hire delivery and transportation vehicles on the city's streets The council voted to halt the issuance of new for-hire vehicle licenses for 12 months while it studies the booming industry. Under the cap, [for-hire companies] could still be granted licenses for wheelchair-accessible vehicles." (https://www.theverge.com/2019/11/1/20943975/uber-lawsuit-nyc-vehicle-cap-dismiss) "The New York City Taxi and Limousine Commission voted Wednesday to extend its cap on the number of Uber and Lyft vehicles permitted to operate within the city extends that cap for another 12 months" (https://www.theverge.com/2019/8/7/20758796/nyc-uber-lyft-cap-extended-tlc-de-blasio) ³ "A Livery Base Station must submit a business plan with each application for a new or renewal License or for a change of ownership of the Base Station License. The business plan must include the number of Vehicles currently affiliated with the Base Station [renewal applicants][or] the number of Vehicles they expect to be affiliated with the Base Station when it obtains the License [new applicants]" (City of New York, §59B-05).

When the issue of taxi-licence caps was discussed explicitly with stakeholders in jurisdictions that continue to maintain caps, some noted that they were reviewing alternatives. In one interview an expert consulted noted that the capped medallion system was no longer relevant and has entrenched financial barriers to making changes (e.g. loss of licence value to licence owners). The interviews indicated that one of the primary barriers to removing existing caps is the potential further loss in value of existing licences and, in turn, the potential financial risks to the government.

One large jurisdiction is planning to move away from restricting the number of taxis operating. Los Angeles, which current operates using a franchise model, ¹²⁰ is planning to move towards a controlled-entry model. In such a model, each vehicle to be operated would still need to be licensed, but there would be no maximum limit on the number of vehicles. We discuss some of the considerations around caps as a tool to manage

¹²⁰ A franchise system is a regulatory model in which companies are licensed to operate in certain geographic areas of the city with a certain number of vehicles.



¹¹⁹ Given the open-ended nature of the interviews, not all discussions explicitly discussed the subject.

congestion under Section 4.1.4 (in the next chapter). This section discusses some of the considerations weighed in Los Angeles to select the controlled-entry model.

3.6 Rate Setting/Pricing

3.6.1 Set or Maximum Rates for Trips Arranged Through Approved App

Some jurisdictions continue to regulate maximum fares for taxis; however, a number of jurisdictions (e.g. King County/Seattle, Los Angeles, Edmonton, etc.) have removed or are planning to remove maximum fare requirements on trips arranged through an approved app, provided that the fare is transparently communicated to the customer upfront prior to the trip.

Even where maximum fares are not set, some jurisdictions do set minimum fares and cancellation fees. One US jurisdictional expert consulted noted that one of the barriers of taxi drivers adopting app usage is over concerns of a cancelled trip/no show, so having a minimum fee could help address this concern.

Figure 3-14: Set or Maximum Rates for Trips Arranged Through Approved App

Municipality	Taxi	TNC/ PFHV	Limo	Notes
Calgary	X	x	х	For participants using approved app, rates not regulated by The City. Surge pricing allowed. Rate must be clearly stated to customer prior to them accepting trip.
Edmonton	X	x	х	Minimum charge of \$3.50 per trip (or service request cancelled) for trip arranged through "mobile application approved by the City Manager" (Bylaw 17400, Schedule A – Fares).
Vancouver	√1	X²	N/A	¹ Taxis may accept app-hailed rides but may not accept payment through the app, unless they have a TNS authorization. The regulated rates still apply. ² The Passenger Transportation Board will set minimum rates based on the highest flag rate in a given region.
Mississauga	х	х	х	Regulated taxicab rates set out in the bylaw; taxicab drivers permitted to deviate from these only where trip has been requested using an approved app (Public Vehicle Licensing By-law, Schedule 8, s. 9). TNC fare levels unregulated. Must, however, be disclosed to passenger and accepted prior to the start of the trip (Transportation Network Company Licensing By-law, Schedule "B" s. 7). Limos have basic regulated minimum rate for Class A of \$50 for the first hour and \$30 for each subsequent hour with minimum duration of 2 hours, and for Class B of \$50 for the first hour or part thereof and \$30 for each subsequent hour (Public Vehicle Licensing By-law, Schedule 6, s. 2.(1)(f)).
Toronto	x	х	х	Rate regulation complex. Most tightly regulated for taxis. Basic taxicab rate is \$3.25 minimum plus additional \$0.25 per 0.143 km but with various allowances for flat fares, airport fares and rates higher/lower than the tariff on trips booked through brokers. Taxicab rates higher than the tariff permitted if trip is booked through broker using an app. (Vehicle-for-Hire Bylaw ss. 546-19 – 546-25). PTCs largely unregulated with only a required minimum rate of \$3.25 (Vehicle-for-Hire Bylaw s. 546-115). Limos have regulated minimums and must file schedule of rates that they charge (Vehicle-for-Hire Bylaw s. 546-78, s. 546-85, s. 546-108 and s. 546-109).
Ottawa	√	х	х	Where app is used to arrange trip, standard or accessible taxis may charge less than the tariff set out in Schedule "B"; also, surcharge up to \$15 may be added depending on vehicle and type of service, and fee of \$5 applies for



Municipality	Taxi	TNC/ PFHV	Limo	Notes
Wing Country!				cancellation of the trip at the door (By-law No. 2019-335, s. 4, and Schedule "B"). PTC fare levels unregulated. Must, however, be disclosed to passenger at the time trip is arranged (Vehicle for Hire By-law, s. 136(a)(iii) and s. 136(a)(iv)). Limos have basic regulated minimum rate (exclusive of GST) of \$75 for the first 90 minutes, or part thereof, and \$50 for each subsequent hour (may be divided into quarters for each 15 minutes or part thereof) (Vehicle for Hire By-law, s. 104).
King County/ Seattle	X¹	X¹	X²	before a passenger confirms a ride. Specifically, the "total fare, a fare range or a rate by distance or time" must be displayed. ¹²¹ None noted during review.
Portland	X	Х	Х	
San Francisco	√	х	х	¹ State: "The taxicab company may set fares or charge a flat rate. However, the city or county may set a maximum rate." (GOV, Title 5, Division 2, Part 1, Chapter 1, Article 4, 53075.5). City: "E-Hail Fee. An E-Hail Fee of up to [\$6.63 (US\$5)] may be charged by a Color Scheme that provides E-hail service to any customer who requests taxi service by E-Hail." (Transportation Code, Division II, Article 1100, Sec. 1124).
Los Angeles	X¹	Х	X	¹ Currently, LADOT sets rates. However, "in fulfillment of one of the study's guiding principles to level the playing field among for-hire vehicles, LADOT desires to remove any restrictions on taxi fare setting, so long as they provide the customer with upfront fare calculation of the entire trip, in the same manner of TNCs It will also be a pre-requisite for a requirement that all for-hire vehicles participate in a universal dispatch app, as part of the incentives framework." ¹²²
Salt Lake City	х	х	х	Unlike taxis, TNCs do not have to submit rates for approval by City Council, nor are TNCs subject to the fixed airport-city maximum rates (see Figure 3-15).
Denver	√	x	x	Motor Carriers (excludes TNCs) operating in selected counties, including Denver, must employ a GPS-based, digital dispatch system, primarily to enable verification of hours of service (4 CCR 723-6-6100(a), 4 CCR 723-6-6111, 4 CCR 723-6-6800). Whether trip is arranged through a digital dispatch system or not, the maximum rates described in Figure 3-15 would apply.
Houston	√ 1	X²	√3	¹ The city ordinance is silent on fees for trips arranged through mobile applications, but prescribes a complex fee structure based on location, time of day, type of rider, amount of luggage, type of road (tolled or not) for other trips. (Sec. 46-31). ² The state is silent on the issue of a fare maximum for TNCs (Sec. 2402.103). ³ The city requires limo services to submit their fare schedules in advance but does not regulate their amounts nor specify method of trip arrangement. (Sec. 46-243).
Chicago	√ 1	X¹	X¹	Taxicabs are required to charge the rates that are set out in the Traffic Code whether through telephone dispatch, hailing or on trips arranged through an app. For TNP and livery vehicles, rate levels for trips arranged through licensee's app or digital platform are not set by the City, although their fares must be displayed.

 $[\]frac{121}{\text{https://www.kingcounty.gov/depts/records-licensing/licensing/taxi-for-hire-transportation-networks/company/company-application.aspx}$

¹²² Sam Schwartz. 2019. Draft: LADOT Taxi and For-Hire Vehicle Study.



Municipality	Taxi	TNC/ PFHV	Limo	Notes
				¹ For taxicab trips arranged through an app, and for livery or TNP vehicles, fares higher than the regular rates are permitted but capped as follows: licensee may a charge a fare higher than the regular fare only if public notice is provided of the time period when the higher fare would apply, the customer is able to obtain the total reasonable fare estimate (a range), the customer agrees to the estimate and the ultimate charge does not exceed the estimate by more than 20 per cent. (The Traffic Code, c. 9-114-265, c. 9-112-600(i), c.9-115-200(c)).
New York City	Х	X	X	

3.6.2 Set or Maximum Rates for Telephone Dispatch and Street Hails

Most jurisdictions continue to regulate taxi rates for trips that are not arranged through an approved app. However, some of the jurisdictions have stated that they are trying to move away from having a regulatory role in rate setting, provided there is upfront pricing transparency facilitated through a GPS-based soft meter.

In some jurisdictions, there is a vehicle type that can accept street hails but charge a flat rate, which is currently based on a manual rate book (filed with the regulator). It was noted that potentially GPS-based meters could be used to eliminate any manual rate book flat fare concept as well as clearly display the pricing upfront.

Though not raised in the consultations, these discussions implicitly raised the issue of fare predictability as a potential issue of public concern, particularly for those with no alternative means of transportation or those living on a low income. In other words, while fares could potentially be allowed to vary, there are potentially arguments that for certain service types, fares might only be allowed to vary according to a predictable schedule, which could only be changed on an infrequent basis (e.g. quarterly). This would allow certain passengers greater cost certainty in pre-planning trips (e.g. to medical appointments). We raise this to emphasize that rate regulation need not be a dichotomy between no set fares and full variability; however, we did not see any examples of this as a common model.

Figure 3-15: Set or Maximum Rates for Telephone Dispatch and Street Hails

Municipality	Taxi	Notes
Calgary	✓	Regulated rate exists as a maximum; taxi companies can charge less. Maximum is \$3.90 for first 120 metres and \$0.20 for each additional 120 metres when travelling at a speed greater than 20.24 km/h.
Edmonton	✓	(a) \$3.60 for the first 135 metres or any portion thereof; (b) \$0.20 for each additional 135 metres; (c) \$0.20 for each additional 24 seconds of waiting time (equivalent to approximately \$30.00 for each hour of waiting time); and (d) \$3.60 for any request for service cancelled upon arrival without prior notice (Schedule A – Fares).
Vancouver	✓	
Mississauga	✓	Regulated taxicab rates set out in the bylaw; taxicab drivers not permitted to deviate from these except where trip has been requested using an approved app (Public Vehicle Licensing By-law, Schedule 8, s. 9). Brokers prohibited from accepting orders for, or directing orders to, a taxicab where the fare is less than the regulated fare (Public Vehicle Licensing By-law, Schedule 5, s. 9). Taxicab basic rate is \$4.25 for first 141 metres or part thereof for 1-4 passengers, plus \$0.25 for each additional 141 metres or part thereof, and \$0.25 for each 30 seconds waiting time (Public Vehicle Licensing By-law, Schedule 9). Taxicab rates reviewed every two years and additionally as well if needed (Public Vehicle Licensing By-law, s. 44).
Toronto	1	Rate regulation complex. Most tightly regulated for taxis. Basic taxicab rate is \$3.25 minimum plus additional \$0.25 per 0.143 km but with various allowances for flat fares, airport fares and rates



Municipality	Taxi	Notes
		higher/lower than the tariff on trips booked through brokers (Vehicle-for-Hire Bylaw ss. 546-19 – 546-25). Limos have regulated minimum rates and must file with ML&S the schedule of rates that they charge (Vehicle-for-Hire Bylaw s. 546-78, s. 546-85, s. 546-108 and s. 546-109).
Ottawa	√	Regulated taxicab rates set out in the bylaw; standard and accessible taxicab drivers permitted to charge less than these only where trip has been arranged through an app (Vehicle for Hire By-law, s. 88 and s.90). Taxicab basic regulated rate (1-6 passengers) is \$3.45 for first 150 metres, or part thereof, plus \$0.16 for each additional 86 metres, or part thereof, and \$0.16 for each 24 seconds waiting time, or part thereof (Vehicle for Hire By-law, Schedule "B").
King County/ Seattle	✓	Taxi rates set by Seattle and King County. For hire vehicles that can accept street hails, but provide a flat fare, must file rates (unless using an app to arrange trip). 123
Portland	✓	"The taximeter, traditional or computer application-based, must be used to calculate all fees for time and distance traveled and must be programmed with all fares, including flat rates or fees previously reported to the Director" (City of Portland Chapter 16.40.160).
San Francisco	✓	State: "The taxicab company may set fares or charge a flat rate. However, the city or county may set a maximum rate." (GOV, Title 5, Division 2, Part 1, Chapter 1, Article 4, 53075.5).
Los Angeles	X ¹	¹ Currently, LADOT sets rates. However, "in fulfillment of one of the study's guiding principles to level the playing field among for-hire vehicles, LADOT desires to remove any restrictions on taxi fare setting, so long as they provide the customer with upfront fare calculation of the entire trip, in the same manner of TNCs It will also be a pre-requisite for a requirement that all for-hire vehicles participate in a universal dispatch app, as part of the incentives framework." ¹²⁴
Salt Lake City	√	The City does not set the rates for taxis, but taxi services must submit their rates for approval by City Council and may not charge more than these approved rates (SLC City Code, c. 5.72.405). Also, except as otherwise stipulated, fares other than those as calculated by the taximeter are not permitted (SLC City Code, c. 5.72.305(H)). There are fixed maximum rates set for taxis and limousines when leaving the SLC International Airport to locations within SLC (\$25 or \$30, depending on destination). TNCs are not subject to these airport-city trip fixed rate requirements (https://slcairport.com/parking-and-transportation/ground-transportation/). Limousines do not appear to have their rates regulated, other than the rates for airport-city trips.
Denver	√	LMT carriers must file their rates with the PUC, which must be at or below the maximums set out by the PUC as follows: \$3.50, flag drop; \$2.80 per mile; \$0.40, traffic delay; \$0.50, waiting time per minute after five minutes; \$1.00, additional passenger fee; \$1.00, additional baggage fee after three bags (4 CCR 723-6-6804(a)). Ordinary Taxicab Service providers must have their tariffs approved and filed with the PUC and must operate in accordance with these tariffs (4 CCR 723-6-6208(a), 4 CCR 723-6-6208(b)). PUC has also established maximum flat rates for transportation to/from DEN (airport) and within the Denver downtown area based on specified zones (4 CCR 723-6-6255).
Houston	√	The city requires limo services to submit their fare schedules in advance but does not regulate their amounts nor specify method of trip arrangement. (Sec. 46-243). For taxis, the city ordinance prescribes a complex fee structure based on location, time of day, type of rider, amount of luggage, type of road (tolled or not). (Sec. 46-31).
Chicago	√ 1	Taxicabs are required to charge the rates that are set out in The Traffic Code. Except as otherwise provided, it is unlawful to charge higher rates. (The Traffic Code, c. 9-112-600(b)). City council may revise the rates upon determining this to be necessary (The Traffic Code, c. 9-112-600(g). Basic taxicab rates are: \$3.25 for the first 1/9 mile or fraction thereof (of this initial rate, specified portions are designated for workers' compensation insurance, the City's ground transportation tax and the City's accessibility fund fee); \$0.25 for each additional 1/9 mile or fraction thereof; \$0.20 for each 36 seconds of elapsed time; \$1.00 for the first additional passenger (between the ages of 12 and 65); and \$0.50 for each additional passenger (between the ages of 12 and 65) after the first

 $^{^{123}}$ Berk et al. 2019. POLICY GUIDE Regulation of Taxi and For-Hire Vehicles.

¹²⁴ Sam Schwartz. 2019. Draft: LADOT Taxi and For-Hire Vehicle Study.



Municipality	Taxi	Notes
		additional passenger (The Traffic Code, c. 9-112-600(a)). ¹ Higher rates may be charged for taxicab service dispatched through an App or digital platform for the provision of prearranged services (The Traffic Code, c. 9-112-600(i). See Figure 3-14.
New York City	✓	¹ "The Taximeter must combine fractional measures of distance and time in accruing a unit of fare" (City of New York, §58-26). ³ "A Base Owner must not quote or charge a fare, or allow a Dispatch Service Provider to quote or charge a fare, that is more than the fare listed in the Rate Schedule filed with the Commission" (City of New York, §59B-23).

3.7 Vehicle Requirements and Safety Considerations

3.7.1 CCTV Camera Requirement

Many of the jurisdictions reviewed require passenger-facing CCTV cameras installed in taxis, but not PFHVs (Figure 3-16). Though not included directly in the scan, discussions at the IATR Conference noted that one Canadian jurisdiction recently required sound to be recorded as well. Through these discussions, it was noted that sound provided investigative value, particular in resolving fare disputes.

Figure 3-16: CCTV Camera Requirements

Municipality	Taxi	TNC/ PFHV	Limo	Limo Notes	
Calgary	✓	X	X	Required in taxis; optional for other vehicles.	
Edmonton	X	X	X	Not mandatory to our knowledge, though some companies have installed them. 125	
Vancouver	√	x	x	Under the Passenger Transportation Board's BC Taxi Camera Rule, licensees in the Lower Mainland (excluding Hope) ¹²⁶ are required to install and maintain cameras that cannot record sound. ¹²⁷ Under Section 28(3)(a) of the <i>Passenger Transportation Act</i> , the Passenger Transportation Board has the authority to "establish terms and conditions that apply to a special authorization included in a licence, if issued, including, without limitation terms and conditions respecting any of the following: equipment or technology that must be installed, used or carried on or in motor vehicles operated under the authorization and the inspection, testing, adjustment, display and use of that equipment or technology", but to our knowledge, cameras are not required of TNC or limousines.	
Mississauga	X	X	X	Security camera required only for special accessible taxicab (Public Vehicle Licensing By-law Schedule 7, s. 7.(1)(t)).	
Toronto	✓	Х	√	Camera system required in taxis and limos (Vehicle-for-Hire Bylaw s. 546-47and s. 546-92).	
Ottawa	✓	X	X	Required for standard and accessible taxicabs (Vehicle for Hire By-law, s. 39).	
King County/ Seattle	X¹	Х	х	None noted per Seattle Department of Finance and Administrative Services "Provisions" summaries. However, taxis must have a silent alarm.	
Portland	✓	X	X	"Digital security cameras are required in every permitted taxicab, or secure digital	

¹²⁵ Ramsay, C. 2015. Dashboard cameras to be installed in hundreds of Edmonton cabs.

¹²⁷ https://www.ptboard.bc.ca/documents/rule BC Taxi Camera.pdf



https://globalnews.ca/news/2205630/dashboard-cameras-to-be-installed-in-hundreds-of-edmonton-cabs/

¹²⁶ https://www.ptboard.bc.ca/documents/FV Taxi Camera Program.pdf

Municipality	Taxi	TNC/ PFHV	Limo	Notes
				records with contact information from the passenger must be maintained by the Taxi Company. Taxi Companies own the cameras or secure digital records and are responsible for their maintenance and the records produced by them" (City of Portland Chapter 16.40.140).
San Francisco	✓	x	X	City: "All Taxis and Ramp Taxis shall be equipped with an operational security camera manufactured after December 31, 2006" (Transportation Code, Division II, Article 1100, Sec. 1113).
Los Angeles	√ ¹	х	X	1 Alternatively, a safety shield may be installed in non-wheelchair accessible taxis. (Taxicab Rule 407).
Salt Lake City	X	X	X	There appear to be no requirements for security cameras.
Denver	Х	Х	Х	No mention of a CCTV requirement in the relevant rules or statute.
Houston	Х	Х	Х	
Chicago	1	х	Х	Taxicab licensees required to equip vehicles, while operating as taxicabs, with either an approved safety shield, camera or both, or other comparable approved system (The Traffic Code, c. 9-112-140).
New York City	✓¹	х	Х	¹ Taxicab must be equipped with an in-vehicle camera system (City of New York, §58-36).

3.7.2 Physical Meter Required

Most jurisdictions still require taxis to maintain a taximeter, which calculates fares based on time and/or distance. Historically, these have been physical meters hardwired to the vehicle. A number of jurisdictional experts indicated that they were actively exploring allowing and/or encouraging the taxi industry to utilize "soft meters," also sometimes referred to as a "virtual meter." In BC, a soft meter is described as:

- a) any device used as a taximeter that calculates distance travelled on the basis of GPS technology, or
- b) any smartphone or tablet with a touchscreen (or a similar mobile device such as an Android or Apple product) that is loaded with application software to be used as a taximeter. 128

More broadly, based on discussions, a soft meter would be any tamper-resistant application loaded on a smartphone/tablet that would provide a methodology for computing fares on the basis of primarily GPS data.

In reviewing the bylaws in each jurisdiction, it is not always possible to confirm that a soft meter would be allowed. (Most bylaws still specify that a meter is required, but may not specify that a soft meter is allowed). The following jurisdictions were noted as specifically allowing for soft meters under certain guidelines:

- BC
- Ottawa
- Houston
- Washington, DC (not within the 15 jurisdictions, but noted as being the first jurisdiction in the US to allow soft meters; see Section 4.3.3.

¹²⁸ BC Passenger Transportation Board. BC Taxi Soft Meter Rule.



As noted, other jurisdictions are exploring allowing soft meters, but there are some regulatory barriers to implementation, particularly in certain US jurisdictions.

In Canada, the federal government does not regulate taximeters.¹²⁹ It was noted by US experts that one of the challenges in moving away from "hard" taximeters related to the existence of federal standards and state regulations that govern meters, which have not yet been fully updated to allow for soft meters. At the IATR Conference, some of the discussion was concerned with the accuracy of GPS-based smart meters, dealing with signal loss issues, etc.

One US expert, though acknowledging that he/she was not a technical expert, noted that some of these issues are moot if the jurisdiction allows for upfront transparent pricing, rather than pricing based on actual distance/time travelled. Another US expert noted that while a soft meter could utilize an algorithm incorporating dynamic pricing and/or real-time traffic, etc., it could also be simpler to include existing flat rate pricing by zones, which would be an improvement from a manual "rate book." In other words, some in the industry were suggesting that a soft meter need not replace a taximeter precisely, but rather that the regulatory regimes for pricing could also first evolve, to make soft meters enablers of upfront transparent pricing for street hails.

3.7.3 Exterior Distinguishing Vehicle Markings Required

Calgary has a requirement for distinctive markings on taxis. In addition, taxis are required to have a plate identifier, whereas PFHVs and limousines have decal requirements. In Calgary, TNC PFHV decals are typically referred to as stickers.

In general, most jurisdictions had some requirements for vehicles markings. These were generally more prescriptive and exhaustive for taxis than TNC/PFHVs in terms of required vehicle colours, top lights, company names, etc. Some jurisdictions specifically required top lights for taxis (e.g. Quebec) whereas others allowed these to be optional (e.g. King County/Seattle).¹³⁰

Because the bylaws often provided discretion to administrative staff to set these requirements, it was not possible to confirm through the literature review what specific requirements were. However, a number of the discussions with experts noted that they were exploring or recommending at the staff level allowing trade dress and other prescribed markings to be removable (i.e. at the end of a shift) or less intrusive (e.g. a municipally issued window decal). Section 4.1.6 discusses some of the findings from the jurisdictional scan.

Calgary requires TNC/PFHVs to display a trade dress to assist with enforcement. There were mixed requirements for display of trade dress on TNC/PFHVs. Some jurisdictions specifically required vehicles to display TNC trade dress, such as using stickers on the front and back windshield, etc. Some jurisdictions made display of trade dress optional, in part as (1) there was concern that this would encourage street hails and (2) one regulator wanted passengers to focus on identifying the correct PFHV using licence plates, vehicle and driver, rather than only identifying it as a PFHV. The Canadian jurisdiction that mentioned item (2) noted that they verified TNC/PFHV compliance through other mechanisms that did not require specifically identifying TNC PFHV through a sticker.

Source: Berk et al. 2019. Regulation of Taxi and For-Hire Vehicles: Policy Guide.



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¹²⁹ BC Passenger Transportation Board. BC Taxi Soft Meter Rule.

¹³⁰ King County/Seattle did have specific requirements for vehicle colour and other identifiers (i.e. the words "taxi", "cab" or "taxicab").

3.7.4 Vehicle Mechanical Inspection Required

Most jurisdictions require vehicle inspections (Figure 3-17). In addition, we note that Calgary has different requirements for inspection frequency depending on the subsector: taxis (inspections every six months), TNCs (default is every 12 months) and limousines (every six or 12 months depending on the type of vehicle). Some other jurisdictions also differentiate the inspection frequency based on sector, whereas others have the same requirements for inspection frequency across sectors. However, as discussed below, even if the frequency requirements are the same across sectors within a jurisdiction, there may be different inspection frequencies depending on the age of the vehicle or number of kilometres driven.

In some cases, similar to Calgary with respect to TNC/PFHV, inspection frequency is mandated partially based on the number of kilometres driven in a year. However, jurisdictions in which annual vehicle kilometres travelled is used to set licensing frequency, it is more often set at 40,000 km per year (e.g. BC and Toronto) rather than 50,000 km (in Calgary). In other cases, jurisdictions might vary the inspection frequency based on the age of the vehicle age — for example, in Ottawa and Chicago, vehicles over five years old must be inspected semi-annually.

Figure 3-17: Vehicle Mechanical Inspection Frequency Required (Note: Inspection requirements are detailed. In the interest of ease of comparison, we have in some cases simplified the requirements. For example, in some cases we converted "at least once per year" to "annually.")

Municipality	Taxi	TNC/ PFHV	Limo		
Calgary	Semi-annually	Annually (unless vehicle has >50,000 km in first year)	Semi-annually (sedan or specialized) Annually (stretch)		
Edmonton	Annually				
Vancouver	Annually if vehicle driven l	ess than 40,000 km, or semi-annua	ally if driven more than 40,000 km ¹³¹		
Mississauga	Annually, w	ith a notable exception for accessik	ole taxis (semi-annual)		
Toronto	Semi-annually, unle	ess the vehicle has travelled less the	an 40,000 km in the past year		
Ottawa	Annually		ive years old) or semi-annually for older vehicles		
King County/ Seattle	An	Annually			
Portland		Annually			
San Francisco	Typically annually, unless vehicle >9 years old, has >200,000 miles or is a "spare"	Annually or every 50,000 miles	Not explicitly noted in licensing guidance, but there is reference to requirements under California's motor vehicle requirements ¹³²		
Los Angeles	Annual	Annually or every 50,000 miles	See San Francisco.		
Salt Lake City	There are specific re	quirements, though not subject to	a regular inspection frequency		
Denver		Annually			
Houston		Annually			
Chicago	Annual (<5 year old) Semi-annual (> 5 years old)	Annual	None noted		
New York City	Every four months	Every four months	Every four months		

Source: CPCS team.

¹³² California Public Utilities Commission. Application for Charter Party Carriers.



CDCC

https://www2.gov.bc.ca/gov/content/transportation/vehicle-safety-enforcement/services/passenger-transportation/pdv-driver-requirements

3.7.5 Vehicle Age Limits

Many jurisdictions have vehicle age limits, range from as low as five years, to as high as 12-15 years or none at all (Figure 3-18). One Canadian regulator was requested to have a vehicle age limit increase to 12 years (from 10 years). Regulator staff recommended against this change, noting that taxis can accumulate 35,000-50,000 km per year, on average. Therefore, by year 10, vehicles can have upwards of 350,000-500,000 km on the odometer. Regulatory staff believed that a 10-year age limit provided a "reasonable standard" to ensure public safety.

However, authors of the Draft: LADOT Taxi and For-Hire Vehicle Study emphasized that setting an age limit for vehicles is only a proxy for the safety of the vehicle:

Setting a limit beyond which a local authority will not license vehicles is somewhat arbitrary since it is possible for a well-maintained older vehicle to be in a safe operating condition. An increased frequency of inspections may, however, be appropriate for older vehicles or vehicles with higher mileage.

In this regard, the San Francisco model appears to provide for no age limit but requires more frequent inspections for vehicles over a certain age (see Figure 3-17 above).

Municipality **TNC/ PFHV** Taxi Limo **Notes Calgary** All vehicle types may be granted an extension once they 8 years reach their age limit, at the discretion of the Chief Livery (sedan) 8 years 10 years Inspector. 10 years (stretch) Edmonton X X X 10 years¹³³ Vancouver X X Six years for Airport Municipal and Airport Public Mississauga Transportation Vehicles (Public Vehicle Licensing By-law, Schedule 3, s. 14(2), Schedule 4, s. 14(2)). Seven years for Limousines, Special Accessible Taxicabs and Taxicabs. Taxicab limit may be extended by one year if 7 years 7 years 7 years conditions met. (Public Vehicle Licensing By-law, Schedule 6, s. 8(4), Schedule 7, s. 8(2), and Schedule 8, s. 42). Seven years for TNC vehicle (Transportation Network Company Licensing By-law, s. 18(1). Taxicab/PTC vehicle must be no more than seven model **Toronto** 7 years years old (Vehicle-for-Hire Bylaw s. 546-51 and s. 546-113). (sedan) 7 years 7 years Sedan/stretch limousine must be no more than seven/eight 8 years years old, by year date (Vehicle-for-Hire Bylaw s. 546-73). (stretch) Taxicab (except London Black Taxicab), Limousine and PTC Ottawa 10 years 10 years 10 years vehicles must be less than 10 years old (Vehicle for Hire Bylaw, s. 78(d), s. 105(2), and s. 147(1)(c). Sources include footnotes cited. 134, 135 King County/ 10 years 10 years X

Figure 3-18: Vehicle Age Limits

https://www.seattle.gov/business-regulations/taxis-for-hires-and-tncs/taxis/taxi-vehicle-owners#vehicleinspections



https://www2.gov.bc.ca/gov/content/transportation/vehicle-safety-enforcement/services/passenger-transportation/pdv-driver-requirements

Municipality	Taxi	TNC/ PFHV	Limo	Notes
Seattle				
Portland	10 years ¹	10 years ¹	10 years ²	¹ "No vehicle will be allowed to operate as a [for-hire vehicle] following 10 years after the vehicle manufactured date, regardless of when the vehicle was purchased or put into service as a Taxi Vehicle." (City of Portland Chapter 16.40.150, 16.40.250). ² "unless the vehicle meets the requirements [for a] Vehicle Age Exemption, regardless of when the vehicle was purchased or put into service as an Executive Town Car Vehicle" (City of Portland Chapter 16.40.350).
San Francisco	x	10 years ²	x	² City: "Each PTV shall be no more than eight Model Years old or be equipped with a power source that complies with emissions standards applicable to the same class of vehicle eight Model Years prior to the current Model Year at the time of permit Issuance" (Transportation Code, Division II, Article 1200, Sec. 1207).
Los Angeles	5 years (with exceptions) ¹³⁶	X	x	
Salt Lake City	Х	Х	Х	There appear to be no vehicle age restrictions.
Denver	✓¹ Less than or equal to 12 years	Х	✓² Less than or equal to 15 years	¹ Applies to ordinary Taxicab Service and LMT carriers (4 CCR 723-6-6117(b)). ² Applies to all Luxury Limousines (see Figure 3-1) except "collector's vehicle" (4 CCR 723-6-6117(c)).
Houston	Less than or equal to 10 years ¹	See note ²	✓³ Less than or equal to 10 years or is an antique, classic, or special interest vehicle	¹ (Sec. 46-20.) ² State: each TNC vehicle must meet the requirements of Chapter 548 of the Texas Transportation Code (Sec. 2402.111). The statute is silent as to vehicle age, but specifies that "an inspection station or inspector may issue a passing vehicle inspection report only if the vehicle is inspected and found to be in proper and safe condition" (Tex. Trans. Code 548.104 (b)). ³ City: Antique is 25+ years, classic is recognized by Classic Car Club of America, and special interest is of limited production, outstanding design, or technical achievement. (Sec. 46-191).
Chicago	7 years or 10 years, depending	X	x	Taxicabs: Seven years if not designated wheelchair accessible or fuel efficient. Ten years if designated wheelchair accessible or fuel efficient (may be extended to 11 years for fuel efficient vehicles). (The Traffic Code, c. 9-112-070(c). Under c. 9-112-070, other restrictions may also apply. TNP vehicles: No apparent age limit. Only requirement is vehicle has not been classed as "salvage," "rebuilt," "junk," "total loss," or any equivalent designation, in any jurisdiction (The Traffic Code, c. 9-115-100(4)). Livery vehicles: There is authority to set limits but it appears none have been set (The Traffic Code, c. 9-114-

¹³⁵ Seattle Department of Finance and Administrative Services. 2018 Transportation Network Company Endorsed Vehicle Information: Overview of Key Provisions for Operating in Seattle. https://www.seattle.gov/Documents/Departments/FAS/RegulatoryServices/information-sheet-tnc.pdf

 $^{^{\}rm 136}$ Sam Schwartz. 2019. Draft: LADOT Taxi and For-Hire Vehicle Study.



Municipality	Taxi	TNC/ PFHV	Limo	Notes
				150(b)).
New York City	X	X ²	X	² For-Hire Vehicles before 1995 have additional inspection requirements (City of New York, §59A-04).

Source: CPCS Team based on the sources noted.

3.8 Licensing and Other Government Fees

The following subsections set out the licensing fees paid by drivers, companies and vehicle/medallion owners. Note that in each jurisdiction, we sought to identify the most comparable fees to Calgary's livery licensing fee schedule, rather than estimating the total regulatory licensing fees paid by drivers. We note that this would be impractical to do comprehensively, as a number of factors would influence the costs, including the specific training provider used, the number of jurisdictions in which a vehicle wishes to operate, etc.

3.8.1 Livery Driver Licensing Fees

Figure 3-19 sets out the fees paid by drivers, if any, to become licensed in each jurisdiction to operate livery vehicles specifically¹³⁷, which range from zero (none) to about \$729 in equivalent Canadian Dollars. Note that the highest fee noted, in New York, has a validity period of typically two to three years. Calgary's existing licensing fees, \$141-\$229, are within this range, but higher than the majority of the other jurisdictions.

As noted, in part to limit administrative costs, a number of jurisdictions (e.g. BC) are seeking to shift the responsibility of ensuring driver compliance with regulatory requirements to the operating companies, with regulators maintaining an auditing function and enforcement function.

¹³⁷ Refer to Section 3.2.1.



Figure 3-19: Driver Regulatory Licensing Fees (in CA\$)

Municipality	Taxi	TNC/ PFHV	Limo	Notes
Calgary	Application: \$0 + Annual: \$141	Application: \$0 + Annual: \$229	Application: \$56 + Annual: \$141	Current bylaw. There is also an alternative structure in which TNCs pay for driver licensing fees directly. Current taxi training fee: \$312
Edmonton	\$63 (one year) or \$104 (two year)	Х	\$63 (one year) or \$104 (two year)	Edmonton, Bylaw Schedule 17400, Schedule B – Fees.
Vancouver	х	х	х	Under the current model, drivers are required to obtain a Record Check Certificate from the TNS provider or passenger-directed vehicle provider. Beyond obtaining a Class 4 licence, drivers are not licensed by the province.
Mississauga	Taxicab Driver, annual: \$167 (new) \$152 (renewal)	x	Limousine Driver, annual: \$167 (new); 152 (renewal)	Fees and expiration dates for licences issued under the Public Vehicle Licensing By-law are set out in Schedules 1 and 2. Fees indexed annually to the All-Items CPI for Toronto CMA (Public Vehicle Licensing By-law, Schedule 1). Licence application requires non-refundable deposit toward the licence fee equal to 10 per cent of the total licence fee (Public Vehicle Licensing By-law, s. 6 and s. 7). PTC and limousine drivers do not require City licence (see Figure 3-5).
Toronto	Annual: \$130	X	Annual: \$130	The current Vehicle-for-Hire Bylaw requires training only in order to drive an accessible taxicab and waives the fee. A more general training requirement was eliminated with enactment of the Bylaw. However, Toronto Taxi Alliance, representing the major taxi companies, requires, since May 4, 2016, new taxi drivers to complete training, the cost of which is \$575.138 Recommendations adopted by the City Council on July 16, 2019, will reintroduce general mandatory training for all taxi and limo drivers and PTCs. 139 Fee source: https://www.toronto.ca/services-payments/permits-licences-bylaws/limousine-service-company-owner-driver/taxicab-or-limousine-driver-vehicle-for-hire-driver/
Ottawa	Standard Taxicab Driver: \$98, annual Accessible Taxicab Driver: \$0, annual	x	х	Fees for all licences issued under the Vehicle for Hire By-law are set out in By-law No. 2019-175. PTC and limousine drivers do not require City licence (see Figure 3-5). Every licence issued under the Vehicle for Hire By-law is for one year, unless it is stated to be otherwise (Vehicle for Hire By-law, s. 9). Application processing fee for all licences, original or renewal, under the



¹³⁸ Centennial College. Taxi Driving Training. https://db2.centennialcollege.ca/ce/coursedetail.php?CourseCode=TAXI-100

¹³⁹ Toronto. City Council consideration on July 16. Op. cit.

Municipality	Taxi	TNC/ PFHV	Limo	Notes
				Vehicle for Hire By-law is \$50 (By-law No. 2019-175).
King County/ Seattle	King County: \$60 (US\$45) + Seattle: \$67 (US\$50) + Seattle business licence: Minimum \$74/year (US\$55/year), varies based on income	X ²	X	1 Source: Berk et al. 2019. POLICY GUIDE Regulation of Taxi and For-Hire Vehicles. ² Berk et al. 2019. POLICY GUIDE Regulation of Taxi and For-Hire Vehicles.
Portland	\$133 (US\$100)	x	\$133 (US\$100)	"All permitted PFHT operators shall pay City permit fees" (https://www.portlandoregon.gov/citycode/article/562930)
San Francisco	Driver Renewal: [\$168 (US\$127)] (Transportation Code, Division II, Article 300, Sec. 320)	х	х	
Los Angeles	\$340 (US\$257, including US\$151 licence fee + US\$106 processing fee)	х	х	Source: https://ladot.lacity.org/what-we-do/taxicabs-vehicle-hire/taxicabs
Salt Lake City	New Badge \$87 (US\$65); Badge renewal, no fee	х	New Badge \$87 (US\$65); Badge renewal, no fee	Fees for Ground Transportation Driver Badge (https://slcairport.com/ground-transportation/assets/pdfdocuments/GT-Drivers-Publication-May-2019.pdf)
Denver	х	х	х	Minimum driver qualifications prescribe only a valid state-issued driver's licence (4 CCR 723-6-6107, 4 CCR 723-6-6108, 4 CCR 723-6-6708, 4 CCR 723-6-6710).
Houston	Vehicle for Hire Driver's Licence \$15.47 (US\$11.67) ¹	х	Vehicle for Hire Driver's Licence \$15.47 (US\$11.67) ¹	¹ The fee for issuance of a license pursuant to this article is stated in the city fee schedule. (Sec. 46-15.4) City Fee Schedule: (https://cohweb.houstontx.gov/FIN_FeeSchedule/default.aspx)
Chicago	\$7 Taxi Chauffeur Licence US\$5.00, new or renewal)	х	\$7 Restricted Chauffeur Licence. US\$5.00, new or renewal	Fee for issuance of a new, renewed or duplicate public chauffeur licence is \$5.00 (The Traffic Code, c. 9-104-030(c)). In addition to the fee, applicants are responsible for the costs of the required criminal background check, any additional checks, and photos (The Traffic Code, c. 9-104-070(b)).
New York City	\$729 (US\$550) annually	\$364 (US\$275) annually	\$663 (US\$500) annually	¹ "The fee for each Taxicab License is [\$729 (US\$550)] annually." (City of New York, §58-07); "No Taxicab can be operated for hire unless the driver



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Municipality	Taxi	TNC/ PFHV	Limo	Notes
				has in his or her possession a Valid TLC Driver License" (City of New York, §58-12). ² "The fee for each For-Hire Vehicle License will be [\$364 (US\$275)] annually" (City of New York, §59A-07). ³ "The fee for the operation of a For-Hire Base is [\$663 (US\$500)] annually." (City of New York, §59B-07).

Source: CPCS Team research of the sources noted.



3.8.2 Company Fees

Figure 3-20 sets out the fees paid by companies that dispatch taxis, PFHV and limousines in each jurisdiction. Unlike driver fees, there are a number of different fee structures used, including:

- Flat fees
- Per vehicle fees
- Per trip fees
- Combinations of the above.

The City's company licensing fees appear within the range of fees charged by other jurisdictions:

- Taxis: Some jurisdictions charge in the low hundreds for taxi fees (e.g. Toronto at \$276 for renewals). In BC, company licenses are charged on a per vehicle basis (\$100), but individual medallion owners are not licensed. If an "average" Calgary taxi company with 320 vehicles were operating in BC, the equivalent fee would be \$32,000. 140 Calgary's taxi company fee between \$1,824 is within the range of fees charged by other jurisdictions.
- TNCs: Calgary's fee (considering the alternative fee structure of \$5,000-\$50,000 depending on the number of drivers) and a \$0.20 per trip fee, has a higher base fee than some other jurisdictions (depending on the number of drivers), but is lower on a per trip basis (\$0.20 versus \$0.30 per trip) than most other jurisdictions. Assuming no impact on the number of trips, a \$0.10 per trip difference is equivalent to up to \$410,000 in annual revenue (based on 2018 TNC trip counts in Calgary). However, The City also requires companies to collect and remit a \$0.10 per trip accessibility surcharge, which is not required in other jurisdictions. Some jurisdictions also charge lower fees (e.g. Ottawa, with a fee structure of \$839-\$7,545 depending on number of vehicles plus \$0.11 per trip).
- **Limousines:** Similar conclusions to taxis.

¹⁴⁰ In Calgary, based on City of Calgary data, we understand that there are in total approximately 1,900 taxi or accessible taxi plates and six brokerage companies. As a result, an "average" taxi company would have approximately 320 plates.



Figure 3-20: Company Fees (in \$CA)

Municipality	Taxi	TNC/ PFHV	Limo	Notes
Calgary	Application/ Renewal: \$1,824	Application: \$1,965 Renewal: \$1,824	Application/ Renewal: \$1,824	Current bylaw. For TNC/PFHV, the bylaw also permits a fee structure of \$5,000-\$50,000 (depending on the number of drivers) and a \$0.20 per trip fee, with a minimum fee of \$229 times the cumulative number of drivers licensed in any given year. The City also requires companies to charge a \$0.10 per trip accessibility fee to customers and remit proceeds from this fee.
Edmonton	\$1,020	1-15 vehicles: \$3,000, 16-50 vehicles: \$10,000, or 51+ vehicles: \$20,000 + \$50/vehicle (accessibility surcharge) + \$0.30 per trip	General dispatch: \$1,036 + \$50/vehicle (accessibility surcharge) + \$0.30 per trip	Bylaw 17400, Schedule B. Consultations noted that there is a cap on the accessibility fee and that it is not currently charged on limousines.
Vancouver	Government of BC: Application fee: \$200/application + \$100 per vehicle (annual)	Government of BC: Application fee: \$200/application + Licensing Fee: \$5,000 + \$0.30 per trip	Government of BC: Application fee: \$200/application + \$100 per vehicle	
	C	City of Vancouver: Application Fee: \$58 + Business Licence: \$155/year + Per vehicle fee: \$100/vehicle¹ + CMP: \$0.30 per pick-up or drop-of	ff ²	¹ Accessible and zero-emission vehicles excepted (Bylaw 4450, Schedule A). ² CCMP means Congestion and Curbside Management Permit, which is a permitting fee required for pick-ups/drop-offs in the core of Vancouver between 7:00 AM-7:00 PM. Wheelchair accessible vehicles are exempt. Zero-emission vehicles receive a 50% fee reduction. ¹⁴¹

¹⁴¹ http://www.civicinfo.bc.ca/news?newsid=7769



Municipality	Taxi	TNC/ PFHV	Limo	Notes
Mississauga	Taxicab Brokerage, annual: \$455 (new); \$425 (renewal)	TNC, annual: \$20,000, plus \$0.30 per trip	Limousine Brokerage, annual: \$455 (new); \$425 (renewal)	 Taxis and Limousines (Public Vehicle Licensing Bylaw): (a) Fees and expiration dates for licences are set out in Schedules 1 and 2. (b) Fees indexed annually to the All-Items CPI for Toronto CMA (Schedule 1). (c) Licence application requires non-refundable deposit toward the licence fee equal to 10 per cent of the total licence fee (by-law, s. 6 and s. 7). TNCs (Transportation Network Company Licensing By-law): (a) Fees set out in Schedule "C". (b) Licences are valid for one year (by-law, s. 11).
Toronto	Taxi Operator Licence: Application, \$500.00; Renewal, \$300.00 Taxi Brokerage Licence: Application, \$411.06; Renewal, \$276.42	PTC Business Licence: Application, \$20,000, annual + PTC company must submit annually on behalf of its drivers: \$15 per driver + \$0.30/trip	Limousine Service Company Licence: Application, \$410.84; Renewal, \$276.22	Source: Multiple City of Toronto licensing pages. All licences issued under the by-law are valid for one year (Vehicle-for-Hire By-law, s. 546-6(A)).
Ottawa	Taxicab Broker: \$839-\$7,545 depending on number of vehicles, annual	PTC: \$839-\$7,545 depending on number of vehicles plus \$0.11 per trip, annual	Limousine Service Operator: \$979, annual	Fees for all licences issued under the Vehicle for Hire By-law are set out in By-law No. 2019-175. Every licence issued under the Vehicle for Hire By-law is for one year, unless it is stated as otherwise (Vehicle for Hire By-law, s. 9). Application processing fee for all licences, original or renewal, under the Vehicle for Hire By-law is \$50 (By-law No. 2019-175).
King County/ Seattle	Seattle taxi association regulatory licence: \$1,333/year (US\$1,000/year) + Seattle business licence:	Seattle business licence: Minimum \$74/year (US\$55/year), varies based on income ¹⁴⁴ +	Washington State fee: \$466 (US\$350) ¹⁴⁵ + Seattle business licence: Minimum \$74/year	



Municipality	Taxi	TNC/ PFHV	Limo	Notes
	Minimum \$74/year (US\$55/year), varies based on income ¹⁴² + King County association regulatory licence: \$166-\$666 (US\$125-US\$500) ¹⁴³ + \$0.13 (US\$0.10) per trip accessibility charge	\$0.31 (US\$0.23) per-trip fee (outside of Seattle in King County) or \$0.19 (\$0.14) per-trip fee (in Seattle) + \$0.13 (US\$0.10) per trip accessibility charge	(US\$55/year), varies based on income ¹⁴⁶	
Portland	\$663 (US\$500)	\$0.66 (US\$0.50) / ride	\$663 (US\$500)	"All permitted PFHT operators shall pay City permit fees" 147 (City of Portland Chapter 16.40.910).
San Francisco	х	\$6,626 (US\$5,000) (Transportation Code, Division II, Article 300, Sec. 322)	х	
Los Angeles	Los Angeles currently operates under a franchise model, which is not directly comparable to Calgary.	\$1,333 (US\$1,000) (valid for three years) Renewal: \$133 (US\$100) ¹	\$1,333- \$2,000 (US\$1,000- US\$1,500)	 California Public Utilities Commission, Application Packet: Transportation Network Companies. California Public Utilities Commission, Licensing Requirements for Charter-Party Carriers.
Salt Lake City	Annual, base fee \$203.95 (US\$153) plus \$29.33 (US\$22) per employee if business has more than one employee ¹	Annual application fee of \$6,665 (US\$5,000) ²	Annual, base fee \$203.95 (US\$153) plus \$29.33 (US\$22) per employee if business has more than one employee ¹	¹ SLC City Code, c. 5.04.070 and SLC Consolidated Fee Schedule, http://www.slcdocs.com/govt/cfs.pdf ² https://dcp.utah.gov/downloads/transportation_ne_twork_company_app.pdf)
Denver	Certificate required to provide ordinary Taxicab Service. Application fee: \$35.00 ¹	Annual permit required to operate as a TNC: fee \$111,2504	Annual permit required to provide service as a Limited Regulation Carrier (includes Luxury Limousines): fee \$03	¹ Providing ordinary Taxicab Service requires Certificate of Public Convenience and Necessity. Application and fee may be found here . ² Offering LMT service requires permit valid for one year (4 CCR 723-6-6803). Application and fee may be

¹⁴⁴ Berk et al. 2019. POLICY GUIDE Regulation of Taxi and For-Hire Vehicles.

¹⁴⁷ https://www.portlandoregon.gov/citycode/article/562930



¹⁴⁵ https://www.dol.wa.gov/business/limousine/limofees.html

¹⁴² Berk et al. 2019. POLICY GUIDE Regulation of Taxi and For-Hire Vehicles.

¹⁴³ Depends on number of vehicles.

 $^{^{146}}$ Berk et al. 2019. POLICY GUIDE Regulation of Taxi and For-Hire Vehicles.

Municipality	Taxi	TNC/ PFHV	Limo	Notes
	Annual permit required to provide LMT service: fee \$800²			found here. 3 Offering service as Limited Regulation Carrier requires permit valid for one year (4 CCR 723-6-6302). Application and fee may be found here. 4 Offering service as a TNC requires permit valid for one year (4 CCR 723-6-6702(a), 4 CCR 723-6-6702(b), 4 CCR 723-6-6702(d)). Application and fee may be found here.
Houston	Annual Taxi Licence and Permit \$773.61 (US\$583.75) ¹	Annual fee; amount set by TDLR ²	Limousine Permit \$773.61 (US\$583.75) ³	¹The annual fee for each permit under this division is stated for this provision in the city fee schedule. (Sec. 46-68) City Fee Schedule: (https://cohweb.houstontx.gov/FIN_FeeSchedule/default.aspx) ² (Sec. 2402.052). ³The annual fee for a permit under this division for each limousine is stated for this provision in the city fee schedule. It shall be paid in advance to the department of administration and regulatory affairs in two installments on or before January 1 and March 1 of each calendar year in amounts prescribed in the city fee schedule. (Sec. 46-232) City Fee Schedule: (https://cohweb.houstontx.gov/FIN_FeeSchedule/default.aspx)
Chicago	Annual taxicab affiliation licence fee, \$500, plus \$5 for each affiliated licensee (The Traffic Code, c. 9-112-340) Annual licence broker fee, \$500 (The Traffic Code, c. 9-112-450) Annual licence manager licence fee, \$1,000 (The Traffic Code, c. 9-112-440) Annual taxicab two-way dispatch service system licence fee, \$500	Annual TNP licence fee, \$10,000, plus \$0.02 per ride administrative fee, plus \$0.10 per ride toward the City's accessibility fund if the vehicle is not wheelchair accessible (The Traffic Code, c. 9-115- 040, c. 9-115-140)	The licence granting authority to operate licensed public passenger vehicles appears to have no fee.	"Taxicab affiliation" means an association of licensees organized and incorporated to provide its members with: (1) a Chicago business address; (2) telephone number; (3) uniform colour scheme; (4) trade name or emblem; (5) an approved two-way dispatch system; (6) insurance; and (7) the designation of an authorized registered agent. (The Traffic Code, c. 9-112-010). "License broker" means any person who acts as an authorized agent in negotiating the transfer of a medallion licence or a loan upon transfer of a medallion licence (The Traffic Code, c. 9-112-010). "License manager" means any person who assumes or undertakes any or all of the responsibilities of the taxicab licensee including, but not limited to, the leasing of the taxicab (The Traffic Code, c. 9-112-010). Licensed licence manager can operate as a licensed taxicab broker without a broker licence (The



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Municipality	Taxi	TNC/ PFHV	Limo	Notes
				Traffic Code, c. 9-112-450). Taxicab two-way dispatch system licence not required for a licensed taxicab affiliation (The Traffic Code, c. 9-112-550). TNP individual applicants/agents of TNP business firm applicants also pay costs of fingerprinting and photos (The Traffic Code, c. 9-115-070).
New York City	The fee for each Taxicab Licence is \$550 annually ¹	Annual renewal fee of \$60,000 ²	The fee for the operation of a For-Hire Base is \$500 annually. ³	¹ (New York City TLC Rules, Chapter 58, §58-07). ² "There is a \$100,000 application fee, \$90,000 of which is refundable if a company is not approved, as well as an annual renewal fee of \$60,000." (https://dmv.ny.gov/more-info/faq-tnc-applicants) ³ (New York City TLC Rules, Chapter 59, 59B-07).

Source: CPCS Team based on the sources noted



3.8.3 Vehicle- or Medallion-owner Fees

Figure 3-21 summarizes the fees paid by vehicle operators. In general, PFHV owners do not pay a vehicle licensing fee (other than a driver fee, as applicable).

To the extent that per vehicle fees are charged to licence holders of taxis and limousines, they varied from about \$350 to about \$984-\$1,082 (for new taxi and limousine licences in Toronto, respectively). Calgary's existing fee structure for a new taxi licence application slightly exceeded that high end for application fees – \$1,093 for a taxi.

Calgary's existing vehicle limousine licence fee of \$731 was at the higher end of the range of other municipalities.



Figure 3-21: Vehicle Licence Fee (in CA\$)

Municipality	Тахі	TNC/ PFHV	Limo	
Calgary	Application: \$181 + Licence: \$912	None	Application: \$0 + Licence: \$731	Current bylaw.
Edmonton	\$415	None	\$415	
Vancouver	Government of BC fee is included in company licensing fee (\$100 per vehicle authorized under a passenger directed vehicle authorization)	None	Government of BC fee is included in company licensing fee (\$100 per vehicle authorized under a passenger directed vehicle authorization)	
	· ·	f Vancouver, per vehicle fee: \$100/ s licence fee. Accessible and zero-er		Bylaw 4450, Schedule A.
Mississauga	Standard and Accessible Taxicab Owner Licence, annual: \$927 (new); \$377 (renewal) Special Accessible Taxicab Owner Licence, annual: \$264 (new); \$259 (renewal)	None	Limousine Owner Licence, Class A and B, annual: \$415 (new); \$349 (renewal)	Taxis and Limousines (Public Vehicle Licensing By-law): (d) Fees and expiration dates for licences are set out in Schedules 1 and 2. (e) Fees indexed annually to the All-Items CPI for Toronto CMA (Schedule 1). (f) Licence application requires non-refundable deposit toward the licence fee equal to 10 per cent of the total licence fee (by-law, s. 6 and s. 7).
Toronto	Taxi Owner Licence (standard vehicle): Application, \$0.00; Renewal, \$984.16 ¹	None	Limousine Owner Licence: Application, \$1,082.15; Renewal, \$695.82 ²	1 https://www.toronto.ca/services-payments/permits-licences-bylaws/limousine-service-company-owner-driver/ 2 https://www.toronto.ca/services-payments/permits-licences-bylaws/limousine-service-company-owner-driver/
Ottawa	Standard and Accessible Taxicab Plate Holder: \$567, annual		Limousine: \$567, annual	Fees for all licences issued under the Vehicle for Hire By-law are set out in By-law No. 2019-175. Every licence issued under the Vehicle for Hire By-law is for one year, unless stated otherwise (Vehicle for Hire By-law, s. 9). Application processing fee for all licences, original or renewal, under the Vehicle for



Municipality	Тахі	TNC/ PFHV	Limo	
				Hire By-law is \$55 (By-law No. 2019-175).
King County/Seattle	Seattle: \$666/year (US\$500/year) + King County: \$266 (US\$200) ¹⁴⁸ + Seattle business licence: Minimum \$74/year (US\$55/year), varies based on income ¹⁴⁹	None	Washington State: Vehicle certificate and decal: \$100 (US\$75) ¹⁵⁰ Vehicle inspection: \$34 (US\$25) per inspection ¹⁵¹	
Portland	None	None	None	
San Francisco	"Monthly Taxi Medallion Use Fee (8000 series) [\$1,325 (US\$1,000)]" "Ramp Taxi Medallion in spare taxi: [\$261 (US\$197)]"	"Private Transit Vehicle Annual Permit Fee — 1-5 Vehicles [\$13,253 (US\$10,000)] Private Transit Vehicle Annual Permit Fee — 6-25 [\$33,131 (US\$25,000)] Private Transit Vehicle Annual Permit Fee — 26-50 [\$66,263 (US\$50,000)] Private Transit Vehicle Annual Permit Fee — 51-100 [\$119,273 (US\$90,000)] Private Transit Vehicle Annual Permit Fee — 51-100 [\$119,273 (US\$90,000)]	None	

¹⁴⁸ Berk et al. 2019. POLICY GUIDE Regulation of Taxi and For-Hire Vehicles. Some state-level fees are also required.

¹⁵¹ https://www.dol.wa.gov/business/limousine/limofees.html



¹⁴⁹ Berk et al. 2019. POLICY GUIDE Regulation of Taxi and For-Hire Vehicles. ¹⁵⁰ https://www.dol.wa.gov/business/limousine/limofees.html

Municipality	Taxi	TNC/ PFHV	Limo	
		101-150 [\$245,171 (US\$185,000)] • Private Transit Vehicle Annual Permit Fee – 151 or more [\$318,060 (US\$240,000)]" (Transportation Code, Division II, Article 300, Sec. 322)		
Los Angeles	Currently operates as a franchise model; not directly comparable	х	х	
Salt Lake City	Transportation Vehicle: new application \$245.27 (US\$184) annual per business; renewal \$01	X ²	Transportation Vehicle: new application \$245.27 (US\$184) annual per business; renewal \$0 ¹	¹ SLC City Code, c. 5.90.010 and SLC Consolidated Fee Schedule, http://www.slcdocs.com/govt/cfs.pdf ² Driver must provide TNC with proof that vehicle is registered with Utah Division of Motor Vehicles.
Denver	Annual Vehicle identification Stamp Fee: \$55.00 (2019) ¹ Department of Revenue "taxicab" licence plate required ²	TNC drivers use their personal vehicles and as such would require a state Department of Revenue-issued licence plate. ³	Annual Vehicle identification Stamp Fee: \$55.00 (2019) ¹ Department of Revenue "livery" licence plate required ²	¹ Motor Carriers (excludes TNCs) required to pay annual fee for each vehicle that the carrier owns, controls, operates or manages, and display the Vehicle Identification Stamp on the vehicle (4 CCR 723-6-6102(a), 4 CCR 723-6-6102(b)). See Colorado PUC, Vehicle Stamps ² Motor Vehicles used in the provision of ordinary Taxicab Service, LMT Service and Luxury Limousine Service require a licence plate issued by state Department of Revenue. (4 CCR 723-6-6256(a), 4 CCR 723-6-6256(b), 4 CCR 723-6-6304(a), 4 CCR 723-6-6304(b), 4 CCR 723-6-6800). ³ "Personal Vehicle" must have at least four doors and be designed to carry no more than eight passengers (§ 40-10.1-605(1)(h), C.R.S.).



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Municipality	Taxi	TNC/ PFHV	Limo	
Houston	Annual Taxi Licence and Permit \$777 (US\$583.75) ¹	x	Annual Limousine Permit \$777 (US\$583.75) ¹	¹ The annual fee for a permit under this division for each sightseeing or charter vehicle is stated for this provision in the city fee schedule and shall be paid in advance to the department of administration and regulatory affairs in two installments on or before January 1 and March 1 of each calendar year in amounts prescribed in the city fee schedule. (Sec. 46-211).
Chicago	\$1,333 (US\$1,000) for taxicabs on issuance or renewal of medallion licence, plus \$30 (US\$22) per month toward the City's accessibility fund if the vehicle is not wheelchair accessible. Licences are for a two-year period. (The Traffic Code, c. 9-112-150)	x	\$666 (US\$500) for livery vehicle, annual (The Traffic Code, c. 9- 114-070)	There are also highly detailed regulations setting out maximum lease rates that a lessor may charge for the lease of a taxicab (The Traffic Code, c. 9-112-220, c. 9-112-230, c. 9-112-240). "Livery vehicles" defined in Figure 3-1.
New York City	"An Owner must pay the Taxi Accessibility Fee charged for each Medallion owned. The Taxi Accessibility Fee must be paid whenever charged by the Commission." (City of New York, §58-07)	X	X	



3.9 Data Submission Requirements

3.9.1 Trip Data

Data Fields Requested

Many of the jurisdictions studied recognized the value of collecting of collecting trip data. A number of municipalities specifically noted the importance of collecting these data to support their roles in regulating the use of municipal rights-of-way (e.g. roads), over and above their role in specifically regulating the livery sector.

In addition to the general requirements in legislation, some jurisdictions also set out through policy documents the specifics of data to be collected from industry. Some specific examples¹⁵² include:

- BC Passenger Transportation Board, Data Requirements, https://www.ptboard.bc.ca/documents/Data_Requirements.pdf. BC's published guidance is particularly exhaustive in that it enables not only study of the
 - The trip request (time and location of requester)
 - The trip itself (e.g. pick-up and drop-off times and locations)
 - Trip metrics (i.e. distance, duration and fare)
 - Other information to link the trip to a company, driver and vehicle
- City of Chicago Rules, Transportation Network Provider Rules, Section II Data and Record Keeping.
 Chicago also has specific data reporting requirements, including the field name and data types:
 https://chicago.github.io/tnp-reporting-manual/data_quality/

As noted above, these data policies require companies to provide information that would enable the study of trip patterns, service quality (e.g. ability to calculate wait time) and, in some cases, fare/revenue information, as well as link it to companies and drivers.

Subsectors Covered

We understand that Calgary has generally good compliance with companies submitting trip data obtained through GPS data, except for limousines. However, we heard that this practice was not universal. We heard that one Canadian jurisdiction had not enforced its trip data collection from the taxi industry, which it was now trying to do. We also heard that another Canadian jurisdiction found evidence through inspections of under-reporting street-hailed taxi trips. The same jurisdiction did not identify significant issues with trips reported electronically by TNCs.

Though not applicable to Calgary, we also heard that because TNCs are state regulated in certain jurisdictions, we heard that sometimes these data are not available to the municipality.

¹⁵² Los Angeles had developed a "Mobile Data Specification", which is intended to be a universal data standard to report trip and other information from mobility providers. While not being used for livery vehicles, it is being used for scooters (see section 4.1.5).



Data Transfer and Sharing

Though not discussed at length, we heard in a number of jurisdictions that data from TNCs was transferred to the regulator generally through secure electronic means. One Canadian jurisdiction specifically noted the use of an application programming interface (API), a communications protocol, to facilitate the transfer.

Some jurisdictions published trip data online through open data portals, such as Chicago.¹⁵³ This portal includes not only information on the total number of trips in a given time period, but also somewhat aggregated information on trip patterns.¹⁵⁴ By comparison, while some jurisdictions have the authority to collect trip data, they did not have explicit agreement to use those data more broadly for transportation planning purposes. One jurisdiction recommended that the bylaw be explicit about requiring for-hire companies to enter into an agreement regarding the use of data, as a condition of licensing.

3.9.2 Driver Data

We heard that even if a jurisdiction did not directly license drivers, it still typically required submittal of all driver information on a frequent basis (e.g. daily) by electronic means. Some jurisdictions specifically noted that they also require the supporting application information to be provided, to enable review of this material.

3.9.3 Safety Statistics

Some jurisdictions (e.g. King County) also require reports of safety occurrences, such as:

- Collisions
- Crimes
- Complaints

Chicago also requires this information as well, i.e. "Traffic accidents or incidents within the City of Chicago while a transportation network driver is operating a transportation network vehicle when such accidents or incidents resulting [in] a police report or insurance claim being filed." Though not raised in the consultations (but identified in the literature review), we also understand that regulations in Chicago also require companies to notify the regulator if a driver is removed from an app for safety reasons. Specifically, under Chicago Rule TNP1.10:

a. TNP licensee must have in place a process to notify and report to the Department the name, associated driver's license number, associated vehicle identification number, and vehicle license plate of an affiliated transportation network driver deactivated from the TNP's platform for conduct that gave rise to a public safety concern, including any of the following reasons: 1. Criminal complaint or arrest; 2. Criminal investigation; 3. Allegation or complaint of sexual misconduct; 4. Allegation or complaint of traffic accident or incident that resulted in a police report or insurance claim being filed; 5. Allegation or complaint of use or possession of an illegal drug or substance; or 6. Allegation or complaint of assault or battery.

https://www.chicagotribune.com/business/transportation/ct-biz-uber-lyft-sex-assault-ride-share-firings-20191210-vf5zoutmwzdyja5vln3dlpu3ia-story.html



¹⁵³ https://data.cityofchicago.org/Transportation/Transportation-Network-Providers-Trips/m6dm-c72p

¹⁵⁴ Though not included in the scan, we noted that Massachusetts also has an excellent report and data available on TNC trip information: https://tnc.sites.digital.mass.gov/

¹⁵⁵ City of Chicago Rules, Transportation Network Provider Rules, Section II Data and Record Keeping.

¹⁵⁶ Wisniewski, M. 2019. Uber, Lyft promise more safety features to prevent sexual assault, but Chicago will have to wait on Uber 'verify your ride' innovation. *Chicago Tribune*.

b. TNP licensee must notify the Department within forty-eight (48) hours of deactivating a driver for the reasons specified in this Rule. Licensees must identify their notification method in the process plan that they submit to the Department

3.9.4 Driver Earnings

Finally, we did note that at least one jurisdiction planned to collect ongoing data about driver earnings. In BC, the Passenger Transportation Board's operational policy indicates that "[t]erms and conditions of licences will require TNSs to provide quarterly reporting of drivers' incomes." 157

¹⁵⁷ Passenger Transportation Board. Introduction of Transportation Network Services, 2019 Operational Policy.



4 Effective Practices, Lessons Learned, Challenges and Emerging Trends

Key Chapter Takeaway

- Based on the consultations with jurisdictional regulatory experts and additional research, this chapter summarizes opinions and findings regarding effective practices, lessons learned and challenges, as well as emerging trends that might affect the regulation of the sector in the future.
- It is important to note that the regulation of the sector is evolving rapidly, along with certain technologies. Thus, some of the regulations/trends highlighted are only just now coming into force; in some cases, evidence for effectiveness is not available. Though some experts noted that they are trying to shift towards more data-driven regulatory policies, we heard that other factors, such as public or stakeholder acceptability or the principles of prudence, appear to be important considerations.
- Some of the key findings from our research:
 - A number of jurisdictions have, either only for TNC PFHV drivers or all subsectors (i.e. BC), moved away from licensing drivers directly and shifted responsibilities such as conducting background checks to the taxi and transportation network companies themselves. Compliance is verified through regular audits of company-submitted data on driver applications.
 - New York City, which has a relatively high proportion of PFHVs, is the only jurisdiction to have implemented a cap on them. A cap may slightly reduce congestion in the "core"; however, for-hire vehicles will continue to be drawn to the core (where demand is highest), so service quality in other areas will likely decrease to a greater extent. A cap on vehicles is also likely to result in profits benefiting licence holders rather than drivers. If TNC PFHV vehicles are not capped, one jurisdiction noted that there would be limited rationale for maintaining controls on taxi numbers as well (from a congestion management standpoint), as these make up a small proportion of vehicles overall.
 - Congestion generated by livery vehicles is a significant concern expressed by a number of jurisdictions. Despite this, many jurisdictions noted the need for stronger measures, including related to data collection, to address congestion. Other strategies that have been implemented or explored to address congestion include: (1) a congestion charge for pick-ups/drop-offs in certain areas during certain times of day; (2) blocking high-traffic areas from livery vehicles through dispatch or app restrictions ("geofencing"); (3) caps/limitations on time spent cruising (driving without passengers); and (4) requiring special permits to operate in high-traffic areas (with additional conditions on pick-up locations, etc.).
 - Some jurisdictions have or are aiming to move away from prescriptive trade dress and vehicle marking requirements towards mandating only a licensing sticker of some form. Some jurisdictions in the scan were exploring fare deregulation for street hails.
 - Concerning trends in the next five years include: higher pace of change, continued interest in congestion and emissions, addressing driver welfare, financial sustainability of TNCs, concerns over interaction between apps, drivers and passengers, importance of accessibility and emergence of autonomous vehicles.



4.1 Effective Practices and Lessons Learned

4.1.1 Should regulatory bodies license drivers directly?

Some jurisdictions shifting responsibility of verifying driver eligibility to companies

The introduction of TNCs in jurisdictions dramatically increased the number of livery vehicles. For example, one jurisdiction noted that it went from having about 1,500-2,000 taxi drivers, to more than 60,000 drivers operating in a given year (though far fewer operate regularly in a given month or at a given point in time).

As a result, though some jurisdictions (e.g. King County) continued to license drivers of TNCs, most have shifted to a model whereby regulatory authorities set minimum requirements for drivers (e.g. having background and driver record checks that do not include certain offences and/or demerits) and shift responsibility to TNCs to ensure that drivers meet those requirements.

In most jurisdictions, the taxi driver licensing model did not significantly change after the introduction of TNCs (i.e. the regulatory body continues to license drivers) but did in a couple of jurisdictions. In BC, the recent changes to the regulatory model no longer allow municipalities to issue municipal chauffeur permits. In lieu of these, all passenger-directed vehicle companies and transportation network service companies (i.e. taxi, transportation network and limousine companies) are required to evaluate whether drivers meet minimum requirements set out by the province and, if they do, issue them a "record check certificate" on an annual basis.

Where regulatory bodies no longer license drivers directly, regulators typically verify that companies are confirming driver eligibility requirements through audits, either regularly occurring or ad hoc. In addition, in some jurisdictions (e.g. BC), the regulator has the authority to issue penalties to companies if companies are not complying with driver eligibility checks.

One of the advantages noted of this model is that it helps control the growth of regulatory resources required to license drivers, in part as TNCs in particular have the basic infrastructure to "permit" drivers and regulatory resources can be focused on verification and further investigation (e.g. of court records), rather than actually licensing (i.e. gathering documentation, reviewing all documents and issuing permits). At least one similar-sized Canadian jurisdiction noted that it has one full-time equivalent resource who is responsible for auditing all records submitted by TNCs. For drivers, it can potentially avoid having to attend a regulatory office for a permit (though this is not necessarily required through a government-issued regulatory model). In turn, this model can help control costs of the regulatory body and in turn the costs paid by industry members.

Though not mentioned by experts, such a model that shifts accountability to companies is also structured more appropriately for a potential future where livery vehicles are operated autonomously. Given the technical complexities of these vehicles, companies with sophisticated expertise would be needed to ensure they operate safely, and thus would be accountable for their operation to regulatory bodies. In addition, with full electronic information about the drivers and supporting information, an appropriate sampling approach, and information about whether regulatory staff agreed/rejected a particular driver licensee, it may be possible to conduct a statistical, risk-based assessment of driver applications, to prioritize which applications need closer review by a regulatory auditor.

Disadvantages of the model include that smaller companies may not have such administrative capabilities to regulate drivers. If driver records are associated with companies, it may be more difficult to verify certain requirements, such as whether drivers are not exceeding maximum hours of service across all platforms. In



addition, depending on the auditing approach (frequency and size of driver sample), the regulator does not necessarily have the opportunity to review all applications.

Continued value of regulatory oversight of driver eligibility

Most regulatory experts interviewed indicated that they saw the model of companies leading on driver checks as working well. One Canadian jurisdiction noted that even a regulatory body-led approach would be subject to error (e.g. a folded paper with the application, etc.) and that the compliance rate of the TNCs was no worse than what they would have been able to achieve as a regulator.

Despite the shift towards having companies permit drivers, there appears to be continued need for driver eligibility oversight. One consultation with a US regulatory expert noted that at a certain point in time, 20% of the applications that they reviewed were technically deficient (e.g. were missing a document, had a typo that limited the ability of comparing records from two sources), and thus in such cases drivers were asked to resubmit their applications. In addition, less than 1% of drivers were denied a licence after already passing through the TNC screen and failing to meet the requirements. (The expert consulted noted that certain criteria for driver eligibility were "required" whereas others provided discretion to the regulator, which explains some of the percentage.) While 1% is relatively low number, if there are approximately 5,000 drivers operating in a jurisdiction, 1% still amounts to 50 drivers who may not have been eligible.

Thus, there appears to be continued value in having companies submit driver information and supporting documentation on a regular basis, and ensuring that regular compliance audits are conducted. Some jurisdictions noted that this data submission occurred daily through a computerized system. Once submitted, some jurisdictions noted that they have at least one staff member whose responsibility is to continually audit company submittals.

Limit ambiguity with driver eligibility requirements

One Canadian jurisdiction recommended reviewing and ensuring that driver eligibility requirements are as unambiguous as possible for core criteria. For example, if a *Criminal Code* conviction is specified as making a driver ineligible, that there be no caveats to that requirement. Given the high number of driver applications that may need to be audited and reviewed, any ambiguity increases the potential of disputes and administrative efforts.

4.1.2 Driver training, is it needed?

Trend towards less training, except for accessibility and core safety requirements

There was no consistent agreement through the scan whether regulators required driver training. A study conducted in 2019 observed:

While the general trend is toward less training, there is one trend in the opposite direction: many jurisdictions have either created or expanded education programs to teach drivers how to meet the needs of persons with disabilities. 158

Some of our data points are consistent with this observation, whereas others are not. For example, consistent with the overall trend, BC does not currently require additional driver training, beyond the knowledge and road test requirements to obtain a Class 4 licence. In addition, one other Canadian jurisdiction noted that one

¹⁵⁸ Sam Schwartz. 2019. Draft: LADOT Taxi and For-Hire Vehicle Study.



-

of its priorities is to introduce an accessible driver training program as a condition for all licensed taxi drivers. However, contrary to the trend, Toronto is reintroducing driver training requirements, but noted that they will be shorter than the pre-2016 requirements (17 days)¹⁵⁹ and will be delivered by accredited third-party providers (rather than the City of Toronto).

On balance, the scan indicated that if driver training were a requirement, that it be limited to safety, accessibility and potentially other core legal requirements (beyond those required for drivers to obtain their driver's licence), including service standards, interacting with people with disabilities, transporting in a safety manner (e.g. pick-up/drop-off), and driving with service animals. In particular, the research and several discussions mentioned the importance of ensuring that *all* drivers are trained in interacting with people with disabilities, considering that many disabilities do not manifest themselves visibly, and some jurisdictions were planning to introduce these requirements. Further, one Canadian jurisdiction noted that through public engagement, it heard that the public generally expects drivers to have a minimum level of training (though no formal data analysis was conducted).

Otherwise, based on past CPCS research and a brief scan of the literature, there is little evidence that driver training in itself improves safety outcomes. Some sources note that this is in part based on having limited well-structured research on the subject. One exception from past CPCS research *may* be when training is combined in a fleet context in which there is the potential for training to be refreshed periodically. In addition, there is the potential for companies to monitor driver behaviour through telematics (e.g. vehicle location, speed, acceleration, etc.). Periodic refresher training and/or management systems for vehicle telematics are two avenues The City could explore in the future; however, it was not generally a requirement in any other jurisdiction. (Mississauga's bylaw noted that airport transportation vehicle drivers must refresh certain training every five years.)

Driver training tended to be outsourced and/or an industry requirement

We noted that there were a number of delivery mechanisms for training raised in the consultations, including (1) requiring companies to provide it, (2) requiring training by a third-party provider accredited by the licensing authority, or (3) having the regulatory authority provide training. Though we observe advantages and disadvantages to each approach, based on the jurisdictional scan alone, we are unable to opine on which model would be a "best practice." To the extent the issue was discussed, we note that the preferred delivery mechanism in a jurisdiction was "path-dependent," i.e. dependent on the historical development of training requirements in a jurisdiction (i.e. whether industry and/or third-party training institutions had historically delivered it).

4.1.3 Commercial licence requirements are rare; do they improve safety?

A minimum Class 4 commercial licence is a provincial requirement to operate a livery vehicle in Calgary. While it is not a requirement that The City can control, it merits further examination to further understand what

Department of Transport. 2019. Canada Gazette, Part I, Volume 153, Number 21: Locomotive Voice and Video Recorder Regulations. http://www.gazette.gc.ca/rp-pr/p1/2019/2019-05-25/html/reg5-eng.html



¹⁵⁹ Sam Schwartz. 2019. Draft: LADOT Taxi and For-Hire Vehicle Study.

¹⁶⁰ UK Road Safety Observatory. https://www.roadsafetyobservatory.com/Introduction/About

¹⁶¹ This in turn raises considerations around driver privacy. For example, in the context of implementation of federal regulatory requirements for locomotive voice and video recorders in the railway industry, regulations limited the use of this information by companies on an ongoing basis to random sampling.

elements are included within a Class 4 licence and how this may differ from other jurisdictions, given that it was a relatively unique requirement.

A Class 4 licence introduces some additional requirements aimed at ensuring safe operation of a motor vehicle, including:

- Medical testing
- Additional knowledge and road test requirements
- A higher minimum age

Alberta is one of the few jurisdictions to require a provincial commercial driver's licence. BC, which is one of the last jurisdictions to permit transportation network companies to operate, also requires a minimum Class 4 licence. While it ultimately adopted the requirement, the committee members who studied the BC issue in fact recommended against requiring a Class 4 licence:

Most Members felt there was insufficient evidence to demonstrate that requiring TNS drivers to hold a Class 4 licence would increase road safety and emphasized other considerations, such as the safety benefits of driver rating systems and the potential of TNS to prevent impaired driving. Others pointed to the value of additional safeguards against poor driving, such as driving record checks and medical exams, and the need to regulate commercial activity. While Members were not in agreement on this recommendation, a majority supported requiring a Class 5 [non-commercial] licence.¹⁶²

Nonetheless, based on further discussions, the rationale for requiring a Class 4 licence in BC is discussed below (see box).

Government of BC Rationale for Requiring a Class 4 Licence

Requiring that all passenger-directed vehicle (PDV) drivers (including TNS drivers) have at least a Class 4 licence ensures that minimum standards are met. A Class 4 licence

- helps ensure passenger safety through increased knowledge and testing.
- mandatory medical fitness exam ensures drivers do not have a medical condition that may impact their
 driving and is completed initially at the time of licence application and periodically afterwards depending on
 the age of the driver.
- has mandatory pre-trip inspections that also help ensure the vehicle is in safe operating condition.
- ensures that individuals who had a criminal conviction for impaired driving or dangerous driving in the last three years and individuals who had four or more convictions for contraventions in the last two years (e.g. distracted driving, speeding or failing to stop) are not eligible to be PDV drivers.

Source: Government of BC: https://www2.gov.bc.ca/gov/content/transportation/vehicle-safety-enforcement/services/passenger-transportation/pdv-driver-requirements

Alberta's requirements for an obtaining and maintaining a Class 4 licence are less strict than BC, including (1) a lower age limit (18 versus 19), (2) no requirements for a criminal background check, and (3) no additional requirements imposed with respect to hours of service (Figure 4-1). We also observe that much of the

¹⁶² Select Standing Committee on Crown Corporations Transportation Network Services: Boundaries, Supply, Fares, and Driver's Licences, March 2019.



educational requirements to obtain a Class 4 licence are applicable to operating a heavy truck safely, and not a taxi/PFHV/limousine in a busy urban area.

We also note that BC no longer has any additional licensing requirements for taxi/PFHV/limousine drivers (though companies must conduct "record checks"), as compared to in Calgary where there are also municipal licensing and training requirements for livery drivers. Thus, in BC, the requirement for a Class 4 licence is not over and above any municipal licensing process.

Alberta		ВС			
Knowledge and testing	 Approximately two pages focused on taxis, plus information about transportation of passengers with disabilities Additional training not required 	 Approximately four pages Additional on-road training not required 			
Medical examination	Yes	Yes			
Minimum age	18	19			
Criminal code convictions and driving record check	No requirements	None allowed for driving-related offences			
Hours of service Does not appear to apply ¹⁶³		The National Safety Code, including hours of service and record-keeping provisions, generally apply			

Figure 4-1: Requirements for a Class 4 Licence in Alberta and BC

Source: CPCS summary of respective provincial licensing pages.

In addition, an additional requirement of the model in BC puts responsibility on both drivers and companies to monitor hours of service (see box). There is evidence that driving drowsy makes up a small but likely underestimated fraction of fatal crashes in the US.¹⁶⁴ The Transportation Safety Board of Canada has identified "fatigue management in rail, marine and air transportation" as one of its safety "Watchlist" issues.¹⁶⁵ However, even with these requirements, there are likely at least two challenges to the effectiveness: (1) typical requirements for specifying hours of service (e.g. a certain time on-duty versus off-duty) may not be effective for drivers working irregular patterns and (2) there are challenges in a company verifying compliance, particularly if a driver is working in another (non-transportation-related) sector.

¹⁶⁵ https://www.tsb.gc.ca/eng/surveillance-watchlist/multi-modal/2018/multimodal-03.html



¹⁶³ Section 2(1) of the Drivers' Hours of Service Regulation indicates that the regulation applies to drivers and carriers: "... of the following vehicles: (a) a bus; (b) in the case of a vehicle other than a bus, a vehicle that is registered under the Act for a gross weight of 11,794 or more kilograms."

¹⁶⁴ The US National Highway Traffic Safety Administration finds:

In 2014 there were 846 fatalities (2.6% of all fatalities) recorded in NHTSA's FARS database that were drowsy-driving-related. These reported fatalities (and drowsy-driving crashes overall) have remained largely consistent across the past decade. Between 2005 and 2009 there was an estimated average of 83,000 crashes each year related to drowsy driving. This annual average includes almost 886 fatal crashes (2.5% of all fatal crashes), an estimated 37,000 injury crashes, and an estimated 45,000 property damage only crashes.

Source: Research on Drowsy Driving. https://one.nhtsa.gov/Driving-Safety/Drowsy-

Driving/scope%E2%80%93of%E2%80%93the%E2%80%93problem

Observations About Hours of Service Requirements

It is noted that there are bylaw provisions requiring that drivers have a certain amount of time off in a day in Calgary; however, it is difficult for a municipal regulator to directly enforce, as a driver may operate for multiple companies. One of the strengths of the BC regulatory model is this regard is that it requires both drivers (through the Class 4 licensing requirements) and passenger-directed companies (through the company licensing requirements) to ensure that drivers are meeting National Safety Code requirements, in part through appropriate record keeping.

Source: Government of BC: https://www2.gov.bc.ca/gov/content/transportation/vehicle-safety-enforcement/services/passenger-transportation/transportation-network-services/apply-tns-licence

Finally, while few jurisdictions require a minimum Class 4 licence, anecdotally multiple jurisdictions required or could require a driver medical examination¹⁶⁶ for all or certain types of livery vehicles (e.g. BC, Colorado, Los Angeles, New York City). Thus, in the jurisdictions scanned, even if a Class 4 licence was not required, a medical exam could be required.

Overall, in the literature reviewed, there was no empirical evidence noted that a commercial driver's licence improves safety in the livery industry. In fairness, this is likely due to challenges in designing a study that could control for variables across jurisdictions, for example. In addition, experts consulted, as well as opinions expressed in the literature, noted the potential value of the medical examination in ensuring safety.¹⁶⁷

As noted, The City does not have control over the Class 4 licensing requirements, so any change would need to be provincial in nature. Given that Calgary has a robust municipal licensing process for livery drivers (e.g. including additional training, police checks, etc.), The City could request that the province exempt Calgary drivers from a Class 4 licence provided Calgary incorporates additional minimum licensing requirements in its existing process (e.g. medical examination requirements and higher minimum age). Potentially, this could lower barriers to driver entry¹⁶⁸ by having only one licensing process, in turn, potentially promoting higher service levels, while maintaining core safety requirements (e.g. medical examination). We note that other states/provinces (e.g. Quebec, Colorado) provide some regulatory flexibility depending on the size of the municipal market, where there is evidence of sufficient competition and/or regulatory capacity to regulate the industry.

¹⁶⁶ In BC, these include but are not limited to:

- Certain types of epilepsy
- Certain psychiatric conditions
- Certain neurological conditions
- Certain heart conditions
- Certain diabetic conditions
- Certain sleep disorders

These conditions may not prevent a driver from obtaining a commercial licence.

Source: https://www.icbc.com/driver-licensing/types-licences/Pages/Get-your-commercial-driver-licence.aspx

¹⁶⁷ Certain stakeholders cited in the study below also noted that it might present barriers to entry with people with disabilities, such as those who are hard of hearing.

Source: Select Standing Committee on Crown Corporations Transportation Network Services: Boundaries, Supply, Fares, and Driver's Licences, March 2019.

¹⁶⁸ The study cited below from BC indicated that it cost approximately \$500 per driver to receive a commercial licence, though the source was not noted and requirements differ between BC and Alberta.

Source: Select Standing Committee on Crown Corporations Transportation Network Services: Boundaries, Supply, Fares, and Driver's Licences, March 2019.



4.1.4 How are jurisdictions addressing concerns over congestion?

Implementing a cap to address congestion: a "blunt" instrument with service-quality trade-offs

To our knowledge, New York City is the only jurisdiction in Canada and the US to implement a cap on PFHV licences, in part over concerns regarding congestion. By certain metrics, New York has some of the worst congestion in the US and Canada.

However, other highly congested jurisdictions, such as Los Angeles, explored continuing to limit taxi numbers, but ultimately decided against it. For clarity, the City of Los Angeles has authority to license taxis, not TNCs. As a result, given that taxis only make up a subset of all livery vehicles (including PFHVs), in part, the argument was made that there is limited merit to continuing to cap taxis. Other analysis supported arguments against a cap as a regulatory tool.

One of the arguments noted was that because of the geography of Los Angeles – a relatively spread-out jurisdiction with fewer geographic constraints along a north-south axis – the impact of congestion generated by livery vehicles was not as significant a concern. Some research has shown that TNC trips only make up a few percent of overall vehicle-miles travelled (VMT), e.g. 2-3% in Los Angeles.¹⁷¹ By comparison, the same study showed that other cities with small, dense cores (like San Francisco), had much higher ratios of TNC VMTs in the core (13% in San Francisco), though this declined to similar levels (3% of VMT) across the overall region in San Francisco. A study in Toronto noted that "[TNC] volumes are a small % of total volume," up to 8%, but only in one traffic zone.¹⁷²

Further arguments against a cap in Los Angeles included:

A jurisdiction-wide cap is a blunt and low-cost regulatory tool to limit the number of taxis irrespective of time, place, or actual traffic flow. For example, a cap designed to curb traffic in the central business district ("CBD") during rush hours or at the airports may result in an insufficient number of taxis being available in other, less congested (and underserved) areas.

There are several other salient arguments against caps on taxis and other for-hire vehicles:

- There are several other sources of congestion besides taxis, such as construction, freight/delivery, tourism, population growth, and, of course, the unchecked proliferation of TNCs;
- Taxis can actually lessen congestion if they substitute private car use;
- Taxis supplement and increase mass transit use if they are providing for first and last mile travel;
- Caps incentivize taxis to concentrate in the most congested areas, typically CBDs, since these are the easiest place to find passengers; and

¹⁷² Dumas, R. 2019. Transportation Impacts of Vehicle-for-Hire – Presentation to UTTRI-ITE Seminar.



¹⁶⁹ New York City Mayor as quoted by the New York Times: "And this action will stop the influx of cars contributing to the congestion grinding our streets to a halt."

Fitzsimmons, E.G. 2018. Uber Hit With Cap as New York City Takes Lead in Crackdown. *The New York Times*. https://www.nytimes.com/2018/08/08/nyregion/uber-vote-city-council-cap.html

¹⁷⁰ E.g. the TomTom Congestion Index.

¹⁷¹ Fehr and Peers. 2019. Estimated TNC Share of VMT in Six US Metropolitan Regions (Revision 1)

Caps create barriers to entry that may increase fares and reduce service quality and innovation.

In New York, even though a cap on licenses is currently in place, analysis by the New York City Taxi and Limousine Commission and New York City Department of Transportation also provides similar findings: regulating the number of vehicle licences may result in only a small decrease (4%) in the volume of vehicle hours operated in the core, but has a larger impact on non-core areas in terms of wait times (an increase of 15%). Refer to the box on page 90 for a brief summary of key findings.

Some studies have aimed to draw a link between the growth in TNC trips and congestion. A study for the San Francisco County Transportation Authority found that, depending on the metric, TNC trips have contributed to about half of the increase (i.e. *change*) in congestion (i.e. delay, VMT and speed) over a five-year period.¹⁷⁴ However, a study by City of Toronto staff argued:

Establishing any direct causal relationships between vehicle-for-hire trips and changes in congestion is unlikely as the causes of congestion are too complex with many competing factors at play

While this is not suggesting that TNCs do not contribute to congestion, the evidence, even in a relatively congested city such as Toronto, is limited. ¹⁷⁵

¹⁷⁵ Dumas, R. 2019. Transportation Impacts of Vehicle-for-Hire – Presentation to UTTRI-ITE Seminar.



¹⁷³ Sam Schwartz. 2019. Draft: LADOT Taxi and For-Hire Vehicle Study.

¹⁷⁴ San Francisco County Transportation Authority. 2018. TNCs & Congestion.

Findings of New York City Taxi and Limousine Commission and Department of Transportation on Policy Options to Address Congestion

The following table summarizes the implications of policies to address congestion generated by for-hire vehicles (FHV) based on two metrics: (1) FHV vehicle hours travelled (VHT) in the core (a potential measure of the impact on congestion) and (2) the average FHV wait time in the core and non-core (a measure of service quality).

Policy	Description	PM Peak Impacts (Compared to 2020 No Action)		
		FHV VHT	Average FHV Wait Time	
		in Core	Core	Non-Core
Cap on Cruising	Companies are required to keep time cruising without passengers below 31% of total driving time in the core during peak hours. Currently 41% industry-wide.	-21%	+11%	-3%
Regulating the number of FHV licences	TLC restricts the number of FHV licences, modeled as a continuation of the number of licences as of August 2018.	-4%	+3%	+15%
Minimum FHV Fare	TLC restricts the number of FHV licenses, modelled as a continuation of the number of licences as of August 2018.	-1%	-1%	0%
Combination 1: Cap on Cruising and Minimum Fare	Companies are required to keep cruising without passengers below 31% of total driving time in the core during peak hours and FHV companies cannot charge less than the standard taxi rate.	-25%	+11%	-4%
Combination 2: Cap on Cruising and Regulating the number of FHV licences	Companies are required to keep cruising without passengers below 31% of total driving time in the core during peak hours and TLC restricts the number of FHV licences.	-24%	+13%	+9%

Source: New York City Taxi and Limousine Commission and Department of Transportation. 2019. Improving Efficiency and Managing Growth in New York's For-Hire Vehicle Sector – Final Report.

Thus, TNC/PFHV trips may have increased congestion, they are still only a small fraction of overall traffic. In addition, there are also benefits from the improved TNC service. Though not providing a comparison pre-TNC, the Toronto study found that wait times were on average under four minutes across Toronto. Another study of the Economic Impact Analysis of the Toronto's Taxicab, Limousine and Private Transportation Companies found that the consumer surplus for both taxi and TNC users increased from \$255.7 million in 2011 [prior to PTC entry] to \$368.6 million in 2016. Thus, looking only at congestion does not provide a full benefit-to-cost perspective.

There is some evidence that TNCs trips replace transit. The study in Toronto found that about 50% of TNC users would have otherwise taken transit had TNCs not existed. The trips by TNC tended to replace bus trips

¹⁷⁷ WSP. 2019. Economic Impact Analysis of the Toronto's Taxicab, Limousine and Private Transportation Companies.



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¹⁷⁶ Dumas, R. 2019.Transportation Impacts of Vehicle-for-Hire – Presentation to UTTRI-ITE Seminar.

(rather than subway trips), and were on average 12 minutes shorter than all transit trips.¹⁷⁸ Thus, in principle, TNC trips appear to be complementary to higher-order transit and a substitute for bus service.

While there is evidence that TNC trips may have increased congestion and substituted for transit, there is also evidence that there have been improved service levels, a benefit for travellers. Thus, from a benefit-to-cost standpoint, it is unclear whether seeking to limit TNC trips overall is appropriate. If addressing congestion is a priority, the research suggested that caps *might* be more appropriate in jurisdictions with a very small and constrained landmass, but that there are a number of pitfalls to caps, including reduced service levels outside the core.

Congestion charging for TNC vehicles¹⁷⁹

The scan identified that at least two jurisdictions, Vancouver and Chicago, are planning to charge a fee for TNC pick-ups/drop-offs in the most congested areas. In Vancouver, while TNCs are not yet operating, the City of Vancouver has instituted a Congestion and Curbside Management Permit (CCMP) for PFHVs operating in the core of Vancouver:

To proactively address concerns about increased road congestion, Council has approved the implementation of new congestion and curbside stopping regulations. Between 7am and 7pm ride-hailing services operating in the metro core will require a Congestion and Curbside Management Permit (CCMP) when dropping-off or picking-up at curbs. The fee is 30 cents per each pick-up and drop-off, and will be reduced by 50% for zero emission vehicles. Wheelchair accessible vehicles are exempt from the fee. 180

Effectively, this fee is attempting to address congestion more precisely in time and space. As well, conceptually, it should encourage transit usage, particularly in the core of Vancouver with some of the highest connectivity. However, it is observed that the policy design may discourage "pooled" trips with multiple pickups and drop-offs.

Chicago, which already has in place per trip fees, further differentiated fees based on zone and whether it is a shared trip:

- Shared trips outside of downtown: US\$0.65
- Shared trips in downtown and single-person trips outside of downtown: US\$1.25
- Single person trips downtown: US\$3.00.¹⁸¹

The intent of this structure appears, in part, to be discouraging single-person trips where congestion is greatest in time and space (downtown during the day).

¹⁸¹ Note that the higher fee for trips downtown is applicable between 6:00 AM and 10:00 PM on weekdays. Source: Caruso, V. 2019. Chicagoans will pay higher taxes on rideshare trips in 2020 as part of Mayor Lori Lightfoot's first budget. *Illinois Policy*. https://www.illinoispolicy.org/tax-on-uber-lyft-rides-in-downtown-chicago-set-to-triple-jan-1/



¹⁷⁸ Dumas, R. 2019.Transportation Impacts of Vehicle-for-Hire – Presentation to UTTRI-ITE Seminar.

¹⁷⁹ It is worth noting that when TNCs increase prices when demand is highest (e.g. surge pricing), this is also in effect a form of congestion charging. However, we have not seen direct evidence of the linkage between surge pricing specifically and how it may limit or spread demand.

¹⁸⁰ City of Vancouver. 2019. Ride-hailing is on its way to Vancouver. https://vancouver.ca/news-calendar/ride-hailing-is-on-its-way-to-vancouver.aspx

Geofencing area restrictions

Some jurisdictions, such as BC and Chicago, have requirements "geofencing" certain areas as off-limits from TNC PFHVs. For example, in Vancouver, this is the area around the cruise ship terminal on days when cruise ships arrive.

The Los Angeles Vehicle-for-Hire Study also recommended consideration of applying special permitting conditions to access high-volume areas, which would also be enabled through geofencing:

If a licensed taxi company wants to access the airports, transit hubs, taxi stands at high volume locations (i.e., stadiums, arenas), or designated bus or HOV lanes, then they would need a special permit from LADOT. Anyone could apply for a special access permit; however, the requirements for these permits would be higher than the basic permit and designed to achieve the city's policy goals. For example, as a condition of getting a permit to access the airport or taxi stands, taxi companies could be required to demonstrate (via data) compliance with designated pick-up and drop-off areas in congested zones, among other criteria. Another example could include requiring the taxi company to provide microtransit/HOV service (shared rides) to use designated bus lanes while transporting passengers. ¹⁸²

Such a concept could be complementary with the approach taken in BC.

Limiting cruising (i.e. vehicles operating without passengers)

In the summer of 2020, the New York City Taxi and Limousine Commission issued a rule that caps the amount of time that drivers can spend without passengers at 31%. The box on page 90 describes this policy in more detail. TNCs Uber and Lyft oppose the rule and have launched a lawsuit against it.¹⁸³

Reinforce authority to regulate livery vehicles to address congestion, including data collection

Concerns over the potential impacts of livery vehicles on congestion were cited by a number of experts consulted. Regardless of the direction taken by The City in regulating congestion, whether it be taking no action, capping livery vehicles, regulating that livery companies do not operate in certain areas (potentially through geofencing), addressing livery vehicles cruising without passengers, and/or adopting some form of congestion charging for livery vehicles, the literature review and discussions with experts provided a number of suggestions for:

- Being clear about the purposes for data collection (i.e. that it is being collected in part to support The
 City's regulatory authority over traffic and public rights of way), both to address concerns from the
 industry and potential privacy issues.
- Setting out that The City may use data collected from regulated participants as part of its mandate to regulate the use of transportation infrastructure.
- Requiring, as part of the legislation, that companies be required to enter into an agreement with The City detailing data collection needs and uses.

These suggestions may or may not be applicable to The City's legal context.

¹⁸³ Balan, A. and Mekla, R. 2019. Lyft follows Uber in suing NYC over cruising time caps. *Reuters*. https://www.reuters.com/article/us-lyft-inc-lawsuit-newyork/lyft-follows-uber-in-suing-nyc-over-cruising-time-caps-idUSKBN1WR0NG



¹⁸² Sam Schwartz. 2019. Draft: LADOT Taxi and For-Hire Vehicle Study.

4.1.5 What data is needed?

As noted, a number of jurisdictions have noted the importance of data collection, particularly for the purposes of ensuring service quality and studying matters such as congestion. There are at least two aspects:

- 1. Data that can be used to track performance and accountability of transportation providers: This can include everything from providing service to all neighbourhoods, vehicle safety, and performance (picking up customer when promised and efficient service delivery).
- 2. Data for use by public planners: These might include origins and destinations, time of travel, background on travellers, trip purpose, etc.

We understand that Calgary already has relatively robust compliance with data submission requirements across the entire industry (TNCs and taxi companies), which was not universal across all of the jurisdictions scanned.

In general, at issue in the discussions was not specifically *what* data was needed, but how it was collected and distributed. Further to the observations made in Section 3.9, the following bullets highlight and add to the existing information raised:

- We reiterate that a number of experts raised the importance of having the ability to use the data for planning purposes (i.e. bullet 2 above), by taking steps to ensure that the regulator has the authority to use these data collected for this purpose. Some jurisdictions (e.g. Chicago) also publish trip pattern data to allow any researcher to access these data.
- Rather than develop data specifications that are specific to livery, Los Angeles developed a data specification that was intended to capture all mobility providers. The intent is to ensure that if a new mobility provider were to enter the market, the data standard would not need to be completely reinvented each time, but could be tweaked (see box).

Los Angeles Mobility Data Specification

Beyond the specifics of *what* data needs to be collected, Los Angeles was noted as being an example of a jurisdiction that is trying to standardize how all mobility data is collected through its Mobility Data Specification (MDS). The MDS is based on a set of application programming interfaces (API), and sets out a particular framework for how vehicle location and condition data is collected from vehicles such as scooters and bikes. In part, the intent behind establishing such a standard (which is open-source), is to avoid having to reinvent a new data submission standard every time a new mobility operator wishes to enter service. The standard is open-source.

Source: Los Angeles Department of Transportation. 2018. Mobility Data Specification. https://ladot.io/wp-content/uploads/2018/12/What-is-MDS-Cities.pdf

4.1.6 What vehicle identification and other requirements are needed?

With the taxi industry losing market share to TNCs (Figure 4-2), some experts opined that this has reduced financial strength and the ability to add competitive technologies and equipment. As compared to TNCs, the taxi industry has been subject to more prescriptive vehicle marking and other requirements, which in turn increase costs for the industry.

In part, this is due to safety considerations around accepting street hails, where, unlike trips arranged through apps, there is no information shared about the passenger and driver. However, anecdotally, we have heard



that the taxi market share is declining in part as the increase in livery vehicles decreases wait times for requested trips. In addition, Alberta has high rates of smartphone penetration (92%), which likely reduces customer need for street hails and alternative forms of dispatch.¹⁸⁴

In addition, there might be technological solutions emerging to address driver/passenger knowledge prior to a trip commencing. For example, for-hire providers at the Portland Airport are piloting a system where when app users request a trip, they receive a code (six digits long with the case of Uber). With the code, the user then proceeds to the TNC PFHV queue, where the drivers enter the code into their app. Potentially such a system could be expanded to encompass street hails as well, in the future. While this approach does not address the issue of smartphone availability, it does address some of the issue of drivers and passengers having information (e.g. names, ratings, etc.) about one another.

In addition, competition, by itself, can encourage taxi firms to deploy cleaner taxis and provide improved services; thus the need to regulate non-safety specific vehicle requirements may also be diminished.

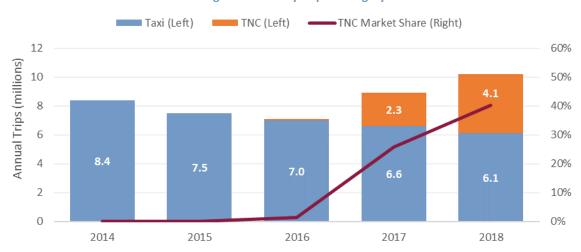


Figure 4-2: Livery Trips in Calgary

Source: CPCS based on LTS data cited in Summit 72, City of Calgary Livery Transport Services Fee Review and City of Calgary 2018 data.

Reduce cost to taxi industry by removing vehicle marking requirements

The City requires taxis to have physical plates and distinctive markings on taxis. In this context, "levelling the playing field" with TNCs can come in the form of reduced requirements for taxis (e.g. markings and painting), and/or allowing some markings to be removable when the vehicle is not in use or at the end of its service life.

Some of the regulatory experts consulted increasingly saw vehicle markings as a taxi/TNC industry management decision as compared to a regulatory decision. They noted that TNCs operate with comparatively little vehicle branding as compared to taxis, yet have experienced significant uptake. To that end, multiple jurisdictions were exploring approaches to reduce the regulatory requirements for vehicle

¹⁸⁵ Uber. Information for driver-partners Portland International Airport. https://www.uber.com/drive/portland/airports/portland-international-airport/



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¹⁸⁴ It is unclear from the context whether it is 92% of people or households.

Source: Hardy, I. 2018. 86 percent of Canadians own a smartphone, says CTA report. *Mobile Syrup*. https://mobilesyrup.com/2018/11/05/86-percent-of-canadians-own-smartphone/

marking to limit industry costs, increase vehicle residual value and/or provide greater flexibility to use a taxi for personal use, while ensuring the safety of the public in terms of being able to identify the vehicle (for street hails). However, it is also important to note that some jurisdictions were maintaining certain requirements. For example, Quebec will still require taxi top lights (though unclear if those need to be physically mounted).

Some of the options being explored by one jurisdiction included limiting the vehicle marking requirements to a window sticker issued by the regulator for vehicles that can accept street hails. Another jurisdiction, which requires vehicles to be identified with a number, allowing these numbers to be removable.

As noted, some bylaws required PFHV vehicles to bear the trade dress of a TNC, usually a sticker in a particular location, whereas others were silent on the issue. One Canadian jurisdiction noted that the rationale for *not* requiring TNC trade dress was over concerns that TNC vehicles would encourage "off-app" hails. Another Canadian jurisdiction noted that they focus its safety messaging on checking the vehicle (including licence plate) and driver, not the trade dress, particularly as there is the potential to identify the wrong vehicle.

Remarks on Identification by Licence Plates in Alberta

In Alberta, given that most vehicles only bear a rear licence plate (unlike most other provinces), it is not possible to confirm the identity of a TNC PFHV until after a vehicle pulls up and the passenger steps around the back of the vehicle to check a licence plate. To support the suggestion regarding safety messaging, The City of Calgary could explore with the Province of Alberta requiring front-licence plates on commercial vehicles.

Overall, the following are two areas that The City could explore:

- Consider reducing vehicle marking requirements for taxis street hails to pronounced window stickers, which can be removable, and potentially with clear expiry dates (e.g. a year), to limit the potential for a vehicle to appear to be licensed. The City may also wish to maintain other lower cost requirements, such as a clear display of company contact information. Regardless of the specific requirements The City believes are prudent, the principle heard in some of the interviews with experts is that any "marking" requirement should ideally not be permanent (e.g. distinctive colours, etc.) to limit the financial impact on the industry.
- Potentially request the province to require front licence plates for commercial vehicles and combine it
 with safety messaging that the licence plate is the vehicle's "unique identifier," which would promote
 consistency for passengers across all industry subsectors. This approach would also potentially
 increase the ease with which enforcement officers could identify livery vehicles.

Otherwise, companies could still be permitted to add additional vehicle identifiers (e.g. distinctive paint, top lights, etc.), if they believed the benefits could exceed the costs.

Require, as much as possible, that all licensing information and supporting documents be stored electronically

Finally, while not directly related to the vehicle markings themselves, one expert recommended that any licensing information that may need to be required to be available to passengers and/or enforcement officers should be required to be incorporated into the application. The Canadian expert noted that enforcement time was used inefficiently in some cases, because while a driver may have met all requirements, they might not have the paperwork (e.g. vehicle inspection, etc.) available.



4.1.7 What fare regulation is needed?

Calgary does *not* currently regulate maximum fares for trips arranged through an app, provided the fare is displayed to the prospective passenger prior to the commencement of the trip.¹⁸⁶ Several other jurisdictions allow this flexibility as well across all industry sectors, though some have additional minimum fare and other requirements.

Several of the experts consulted indicated an openness and/or willingness to move away from regulating street-hailed or telephone-dispatched taxi fares through set distance- and time-based rates, and towards a model that provides taxi companies the flexibility to quote fares based on alternative mechanisms, provided the process for passengers and taxis agreeing on a fare abided by certain principles. Some of the principles cited include that the fare was provided upfront, is transparent to the passenger and is set through a defined mechanism (e.g. a soft meter). To this end, this would need to be enabled by the use of GPS-based soft meters.

Despite this, there did not appear to be significant adoption of a more flexible approach for street hail fare setting; a number of barriers or challenges to adopting a more flexible rate structure for street hails were cited:

- Multiple regulatory concerns, such as the implications of information asymmetry (the driver knowing more than the passenger) and the potential imbalance in power that could exist, as well as the potential for discriminatory pricing.¹⁸⁷
- Slow adoption of GPS-based soft meters in certain jurisdictions.
- Regulatory barriers in the US, as taximeters are often state-regulated based on federal standard setting bodies.

However, there are also a number of reasons why the current model may no longer be appropriate:

- Though no specific data were cited, the importance of street hails was noted as decreasing, particular
 as applications have limited the "search costs" for passengers and the prevalence of for-hire vehicles
 has increased.
- While having regulated rates eliminates a number of the challenges associated with information asymmetry for street hails, the scan noted that fares by distance and time still lead to uncertainty over fares for passengers.
- Though not noted in the consultations, if flexibility is allowed for app-hailed trips, but not street-hailed-rides, then there would be distortions in which trips a driver would more likely wish to accept.
 For example, if a passenger is seeking a ride in inclement weather, and some form of increased rate is

¹⁸⁷ Sam Schwartz. 2019. Draft: LADOT Taxi and For-Hire Vehicle Study.



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¹⁸⁶ S. 54.6(c) of Calgary's Livery Bylaw states:

The **Chief Livery Inspector** may only approve an **App** for **Taxi** and **Accessible Taxi** services if the **App**: transmits to a prospective customer the rate to be charged to the customer including any variable or surge pricing prior to the customer agreeing to the ride;

available through an app,¹⁸⁸ it would seem a driver would be more likely to accept an app-hailed fare, rather than the passenger street-hailing. However, this concern was not raised in any consultations.

Overall, as one US expert summarized, an upfront-based model for street hails need not necessarily be fully dynamic (consider real-time traffic, actual demand, etc.), but could simply digitize existing "flat fares" by zone, or pre-calculate the rate based on the expected distance and time.

Regulatory Challenges

4.2.1 Declining value of taxi licences (medallions)

The taxi business is less attractive now than it was prior to competition from TNCs. Efforts to "level the playing field" involve several dimensions.

A number of jurisdictions noted that one of the significant challenges/concerns was addressing the significantly reduced value of taxi licences (often referred to as medallions). At one extreme, NYC medallions were worth over US\$1 million in 2013 but later dropped to the low hundreds of thousands.¹⁸⁹ In effect, we were hearing that some of the risk of compensation was creating inertia in terms of removing caps on taxi licences.

Without acknowledging liability, one Canadian expert noted that they had considered providing compensation to the taxi industry, potentially paid through a surcharge on trips, but indicated that they were legally prevented from doing so. The Government of Quebec has offered \$814 million in compensation to taxi plate holders, funded through the following sources:

- 1. \$500 million from the Government Treasury;
- 2. \$270 million from a temporary royalty of \$0.90 per taxi and TNC ride. The royalty would be removed when \$270 million is reached (in about three years).
- 3. \$44 million from royalties paid by Uber.

However, the matter is still being litigated. 190

Alternatively, we heard that Los Angeles was planning to create a central dispatch system for taxis. At the IATR 2019 Conference, we heard that the Montreal taxi regulator had been building a standardized system for the taxi industry to communicate. In effect, rather than direct compensation, some jurisdictions were exploring providing non-financial benefits to the taxi industry.

It is important to note that we highlight the declining value of taxi medallion values in part as it was noted by experts consulted to describe why the current model is in place in their respective jurisdictions. However, the legal structure of medallions differed across jurisdictions, so The City should not assume that these specific

¹⁹⁰ Transport Quebec. 2019. Projet de loi no 17 - Le gouvernement du Québec annonce une aide financière équivalant au coût d'acquisition des permis de propriétaire de taxi. https://www.transports.gouv.qc.ca/fr/sallede-presse/nouvelles/Pages/aide-financiere-equivalant-cout-permis-taxi.aspx



¹⁸⁸ E.g. Uber's surge pricing.

¹⁸⁹ Rosenthal, B.M. 2019. 'They Were Conned': How Reckless Loans Devastated a Generation of Taxi Drivers. *The* New York Times. https://www.nytimes.com/2019/05/19/nyregion/nyc-taxis-medallions-suicides.html

lessons apply to them. For example, in King County and Seattle, "[t]he medallion is considered an intangible property right that may be used as collateral to secure a loan from a bank or any other financial institution" In other words, our understanding is that in certain jurisdictions, to varying degrees, the regulator accepted or encouraged that the licence had financial value. Based on discussions with City staff, Calgary's licensing model was not intended to promote a licence as a financial instrument. However, as the scope of this study did not include a legal assessment of Calgary's licensing system (see box below), we would advise The City to consult legal counsel on this issue.

Statement of Limitations: Taxi Plate Compensation

The purpose of raising compensation mechanisms to the taxi industry is (1) to note that is a potential risk to The City of Calgary in moving forward with any changes to the regulatory model; (2) to relay that some jurisdictions noted that the issue of licence value was a significant consideration in terms of how each jurisdiction is determining how to proceed with bylaw changes, if any; and (3) to observe that, should any compensation be justifiable, to relay that some jurisdictions were considering an extra per-trip surcharge to fund that compensation.

The scope of this review did not include a legal review of the legal rationale, if any, for providing compensation to the taxi industry following any changes to the regulatory model. CPCS offers no opinion on whether compensation is justifiable and, if so, in what amount.

4.2.2 Perceived slow response by taxi industry

A number of the experts consulted acknowledged that the taxi industry became overregulated as various regulatory requirements were added over the years.

Without implying that it is universally applicable to all taxi industry participants, a number of jurisdictional experts in Canada and the US noted that an ongoing challenge is the ability and/or willingness of the taxi industry to evolve to meet consumer needs and adapt to the newly competitive marketplace. While some regulators noted that the tightly controlled industry led industry participants to focus more on complying with regulation rather than innovating, TNCs such as Uber and Lyft have introduced a service that is demanded and widely accepted by consumers. A regulator noted that because one of their mandates is to ensure consumer protection and choice, their default direction will not be to regulate the industry in the same way that it has in the past. Rather, it will be focusing more on addressing specific issues using a data-driven approach.

In essence, a number of regulatory experts noted that they will be moving towards focusing on their core mandates, usually public safety and consumer protection, and enabling a more market-driven environment. In general, a number of regulators have heard that the taxi industry wants to increase the level of regulation on the TNC industry in order to "level the playing"; yet, in broad terms, this is the opposite direction most regulatory bodies are taking.

4.2.3 Addressing providing services to individuals without smartphones and who may be underbanked

Some of the consultations noted that there is still a need to provide services to those customers without a smartphone through street hails or telephone dispatch. One US expert (citing from memory) noted that there

¹⁹¹ Berk et al. 2019. Policy Guide: Regulation of Taxi and For-Hire Vehicles



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is still a high number of Americans who do not have smartphones.¹⁹² Smartphone market penetration is relatively high in Alberta (over 90%, see Section 4.1.6), though there are still nearly one in 10 people without a smartphone.

Because taxi drivers do not have information about a passenger before beginning a street-hailed or telephone-dispatched trip (such as a rating), and because cash transactions may be involved, most jurisdictions have higher safety requirements for livery vehicles accepting street hails (i.e. taxis). In fact, almost all jurisdictions required cameras for taxi drivers, but not PFHVs. In addition, taxis have typically needed to be equipped with a taximeter. These items increase costs on the industry.

However, the proportion of smartphone users is increasing¹⁹³ and the volume of cash payments is decreasing.¹⁹⁴ We therefore observe that the potential benefit to the taxi industry of being the sole provider of street hails and telephone dispatch may be increasingly offset by the costs of having to maintain cameras, taximeters, etc. Rather than strictly regulating that taxis must have certain requirements (e.g. markings, taximeters, cameras, etc.), it perhaps merits exploration with industry whether vehicles that accept street hails and telephone dispatch (rather than taxis specifically) be subject to these additional requirements.

In turn, if a market gap emerges such that taxis are no longer offering street hails and telephone dispatch, potentially The City could explore expanding its centralized dispatch system currently being piloted for accessible transit.

4.3 Other Practices of Note

4.3.1 Winnipeg – mandatory fare prepayment pilot

Starting in September 2019, the City of Winnipeg mandated a required prepayment of taxi rides between 8:00 PM and 6:00 AM. The purpose of this program is to "reduce fare disputes between taxi drivers and passengers." Between these hours, potential passengers must deposit \$10 with the driver (by cash, debit or credit). Should the trip fare be less than \$10, the balance is to be refunded, which can be in cash. Exemptions to the mandatory prepayment include:

- Taxi passengers beginning their trip at Winnipeg Richardson International Airport
- Taxi passengers who present a valid taxi voucher
- Taxi passengers who maintain an account with the taxi dispatcher
- Personal transportation providers (rideshare) or limousines¹⁹⁵

¹⁹⁵ City of Winnipeg. 2019. Mandatory Pre-Payment Pilot for Taxis. https://www.winnipeg.ca/vehiclesforhire/taxi-pre-payment-pilot.stm#11



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¹⁹² The estimates vary, but at least one survey estimates that 87% of US homes have a smartphone. Weinschenk, C. 2018. CTA: Smartphone Penetration Second Only to TV in U.S. Households, and Closing Fast. https://www.telecompetitor.com/cta-smartphone-penetration-second-only-to-tv-in-u-s-households-and-closing-fast/

¹⁹³ Canadian Radio-television and Telecommunications Commission. 2018. Communications Monitoring Report 2018. https://crtc.gc.ca/eng/publications/reports/policymonitoring/2018/cmr3d.htm

¹⁹⁴ Bank of Canada. However Canadian Pay for Things. https://www.bankofcanada.ca/2019/10/how-canadians-pay-for-things/

Though it is too early to judge the success of the pilot against its objectives, there appears to be some public support of the pilot, as 54% (494 out of 917) of respondents indicated that prepayment should be "every day". By comparison, about 26% (238 out of 917) of respondents indicated "Other" when asked what days should pre-payment should be mandatory, most of which indicated some variation of "Never" in the comments. Though a cross-tabulation was not provided, if it is assumed that only passengers indicated "Never", it appears that at least half of individuals identifying as passengers (246)¹⁹⁶ would be in favour of pre-payment at some point during the week. ¹⁹⁷

We note that in at least one other Canadian jurisdiction, prepayment is being considered, due to safety concerns raised by drivers. Consultations with the local regulatory authority noted that fare disputes occupy a significant fraction of the enforcement time.

4.3.2 Police-issued livery driver licences

Historically, some jurisdictions have police issue livery driver licences. We discussed whether this was still the case in two Canadian jurisdictions. Our scan turned up that this was no longer the case in the Canadian jurisdictions of interest. In one interview, it was noted that having police issue licences does not provide any separation between an entity with broad investigative powers and information regarding an applicant, and the entity responsible for licensing. To that end, the Canadian experts consulted noted that they did not believe that such a model was appropriate or fair for licensing livery drivers.

4.3.3 Washington, DC – first jurisdiction to implement digital meters 198

According to media reports, Washington, DC was the first jurisdiction in the US to require a transition to digital (soft) meters. The first app was developed in-house by the Department of For-Hire Vehicles, but we understand that other app developers are allowed. The new system allows for varying pricing (by time and distance), though surge pricing was not allowed at roll-out. The article also quotes officials as saying that "the new system will cut expenses for drivers who invest roughly [US]\$2,400 to outfit their cabs to meet current requirements, in addition to frequent meter calibrations that cost [US]\$50 each."

4.3.4 Austin, TX – Significant deregulation of taxi economic regime

It was noted through the scan that Austin City Council in 2018 deregulated the number of taxis that can operate in Austin, as well as removed regulation of taxi fares. However, there are still requirements for fare transparency and government submittals:

taxi franchises under the new ordinance will be required to notify the Austin Transportation Department before putting any particular fare regime in place, to post their fares on their web sites and prominently display them in each cab.¹⁹⁹

https://www.statesman.com/news/20180628/austin-deregulates-taxi-fares-fleet-sizes-cab-colors



¹⁹⁶ i.e. 484 passengers responding to survey minus 238 who indicated "Never".

¹⁹⁷ Out of all respondents, 484 identified as passengers and 316 identified as drivers.

Source: City of Winnipeg. 2019. Vehicles for Hire Taxi Pre-Payment Pilot.

¹⁹⁸ Lazo, L. 2017. D.C. taxicabs on route to digital meters by the end of the summer. *The Washington Post*. https://www.washingtonpost.com/local/trafficandcommuting/dc-taxicabs-on-route-to-digital-meters-by-the-end-of-the-summer/2017/05/20/ea5f8232-3b2d-11e7-8854-21f359183e8c story.html

¹⁹⁹ Wear, B. 2018. Austin deregulates taxi fares, fleet sizes, cab colors. *Statesman*.

4.3.5 Observations on the regulation of apps

Calgary, as well as other jurisdictions, have within their regulatory framework regulations dealing with apps. One US expert noted in passing that some of the challenges observed with existing apps for taxis is that they have not necessarily contained all of the safety features now common to some TNC apps (e.g. the ability to share ride locations, etc.). In addition, some TNCs are piloting new features, such as a requirement for passengers to provide a unique identifying code to drivers, issued when the trip was requested, prior to the trip commencing.²⁰⁰

Calgary's Livery Bylaw Sections 54.6-54.8 specifies a number of minimum requirements with respect to apps. However, it does not specify some of the safety and privacy features that are now common on certain livery apps, including the ability to share locations with third-parties, the ability to mask phone numbers, the requirement to have panic buttons, etc. There are also new developments as noted above (i.e. requiring identifying codes before trip commencement).

Though we did not comprehensively scan all app policies, some did include requirements that related to safety and privacy:

- King County requires apps to have contact information for the company with which to lodge complaints, as well as the local consumer affairs hotline.²⁰¹
- BC has a number of requirements related to privacy, access to investigators as well as complaint resolution.²⁰²

In addition, in Calgary, we also noted that only TNC/PFHV vehicle apps were required to provide driver and vehicle information to a passenger before trip commencing, but not taxis or limousines. Taxis and limousines are currently required to have extensive trade dress requirements, so it is less likely that a passenger would misidentify a non-livery vehicle (though plausible that the passenger would identify the wrong vehicle). However, if trade dress requirements were to be relaxed, and potentially to promote consistent safety messaging, Calgary could consider requiring driver and vehicle information across all industry sectors.

4.4 Trends Affecting the Regulation of the Livery Sector

4.4.1 Emergence of new technology and modes: need for flexibility

Though not a trend itself, a number of experts noted that the pace of change in the industry has increased, and that regulatory flexibility is needed. There is also a larger range of mobility options and new developments that could occur in the future. The Los Angeles for-hire vehicle study highlighted a range of mobility options:

For-Hire Services (Taxi/TNCs)

²⁰² Passenger Transportation Board. 2019. TNSA Apps. https://www.th.gov.bc.ca/ptb/documents/TNSA-Apps-two.ncm. https://www.th.gov.bc.ca/ptb/documents/TNSA-Apps-two.ncm. https://www.th.gov.bc.ca/ptb/documents/TNSA-Apps-two.ncm. https://www.th.gov.bc.ca/ptb/documents/TNSA-Apps-two.ncm.



Uber launches pilot of 'PIN code' safety feature for rides in Phoenix. https://www.fox10phoenix.com/news/uber-launches-pilot-of-pin-code-safety-feature-for-rides-in-phoenix

King County. TNC overview and application process. https://www.kingcounty.gov/depts/records-licensing/licensing/taxi-for-hire-transportation-networks/company/company-application.aspx

- Automated For-Hire Services (Taxi/TNCs)
- High-Occupancy Vehicle (HOV)/Microtransit (a service offering flexible routing and/or flexible scheduling of minibus vehicles)
- Automated HOV/Microtransit Goods Delivery
- Automated Goods Delivery
- Urban Air Mobility
- Shared Micromobility²⁰³

The consultation with a Los Angeles expert also noted that the authority to regulate e-scooters was going to be shifted to the authority of the For-Hire Vehicle Administrator, which also highlighted the convergence between traditional transportation department activities and licensing activities.

Other suggestions that were noted in the consultation included:

- Avoid overly prescriptive definitions and regulations, where possible, except related to safety issues.
 Even with regard to safety issues, ensure that if prescription is warranted, make certain there is a clear underlying objective.
 - One US expert noted for example that if a company wanted to operate a transportation service, there should be as few barriers to "plugging in" (e.g. a company should not have to paint a vehicle just to operate, if that is not essential to ensuring the safety). This, in part, was motivating consideration around minimizing marking requirements to elements that can be removable.
- Have a process in place with principles set out to be able to quickly evaluate new technologies, and propose minor legislative amendments to enable that new service to operate. This is partly enabled by having standard but flexible requirements to which companies must comply, such as Los Angeles's Mobility Data Specification (MDS).
- One jurisdiction noted that while it has separate bylaws dealing with TNCs and taxis, it would ideally
 consolidate both into a single bylaw with schedules, as required. We also reiterate the observation
 made under Section 4.2.3 that some of the rationale for differences in regulation between taxis and
 TNCs have to do with differences such as the method of hailing, rather than industry distinctions per
 se.
- Include within legislation a regular timeline for review.
- Allowing for certain definitions, data requirements and other areas requiring more technical analysis (e.g. hours of service restrictions) to be set through administrative process rather than legislation.

Further, we also observe the terminology "livery" was not as commonly referred to in other jurisdiction's bylaws, which more typically use "for-hire" or "vehicle for-hire" to refer to the bylaw.

²⁰³ Sam Schwartz. 2019. Draft: LADOT Taxi and For-Hire Vehicle Study.



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4.4.2 Continued interest in congestion, emissions and access

The increase in number of livery trips has the potential to improve access through 1) more trips (although this tends to be a small fraction); 2) faster, more reliable service – relative to transit; 3) access to neighbourhoods with limited taxi service – which may be low-income areas. However, a number of jurisdictions indicated that concerns over congestion will likely dominate the discussion of regulating the sector over the next five years. A number of strategies being considered are discussed under Section 4.1.3.

Strategies to promote electrification

In addition, we saw a number of strategies within the regulatory approaches taken that were proposed to encourage vehicle electrification. In Vancouver, for example, certain low-emission vehicles were exempt from the congestion charge imposed for vehicles picking up in the core. Another jurisdiction noted that it was looking at strategies to provide subsidies for fleets (all livery companies) that are all electric.

4.4.3 Addressing driver welfare

Concerns surrounding driver welfare, driver pay and the relationship between companies and drivers (including transparency surrounding pay) were noted during the consultations and through the scan. Note that most actions to specifically address driver earnings was considered by state-level regulators (e.g. California Bill AB5), given that labour law is within the purview of these jurisdictions rather than the municipality. Nonetheless, it is a consideration that certain municipal regulators noted that they were following, particularly as they relate to the financial sustainability of TNCs.

A study by University of Oxford researchers found that after the introduction of Uber in US municipalities, the hourly earnings of wage-employed taxi drivers fell, but that there was an offsetting increase in self-employed earnings:

Analyzing relative changes in the earnings potential of taxi drivers after Uber's arrival we find that hourly earnings among wage-employed drivers on average declined by up to 10 percent in cities where Uber became available relative to the ones where it remained absent. Although the earnings potential of wage-employed taxi drivers fell, these declines were offset by up to 10 percent increases in hourly incomes among self-employed taxi drivers. Examining relative changes in business income yields further evidence showing that the hourly earnings declines among wage-employed drivers were offset by large increases in business incomes of those in self-employment.²⁰⁴

Some studies using reported information and data found a decline in driver wages, particularly in the taxi industry, e.g. in Washington State:

Business is decreasing, along with profits. Almost all dispatchers and companies report decreasing numbers of drivers, vehicles, and rides. Far fewer, if any, taxi vehicles are now driven in two shifts per day by different drivers. And instead of driving 40-50 hours each week, some drivers are driving 80-100 hours each week to earn a comparable living.²⁰⁵

More recently, however, as the market for TNCs has developed, at least one study noted that there has been a tapering off of TNC driver earnings:

²⁰⁵ Berk et al. 2019. POLICY GUIDE Regulation of Taxi and For-Hire Vehicles.



²⁰⁴ Berger et al. 2017. Drivers of Disruption? Estimating the Uber Effect

Using driver earnings data from the Largest [For-Hire Vehicle] Companies, the report found that FHV driver median earnings declined by almost \$3.00 per hour from \$25.78 in September of 2016 to \$22.90 in October of 2017, a decrease of 11.17%.

In New York City, the concerns were particularly acute, as approximately two-thirds of drivers work full time.²⁰⁷

Looking at subjective measures, there was variation across the industry of quality of life measures, with TNC drivers generally reporting an improvement in quality of life following the introduction of TNCs, whereas taxi drivers reporting a decline. In addition, the same study found that more former taxi drivers who became TNC drivers reported a quality of life improvement than taxi drivers who reported a decline:

While there were 79 taxicab drivers who reported a decreased in quality of life, 134 [TNC] ... previously drove for the taxicab industry and reported an increase in quality of life since the vehicle-for-hire regulations of approximately 13% to 21%.

Some of the stated reasons are shown Figure 4-3.

Figure 4-3: Stated Reasons for Quality of Life Impacts

Taxi Drivers	TNC Drivers
Among the reported reasons for the decrease in quality of life, taxicab drivers reported: — A decrease in earnings — Longer working hours to compensate for the lack of earnings which reduces recreational and social time — Inability to cover expenses — Increased stress.	Among of the descriptive/qualitative responses for the perceived quality of life impacts, the following were most commonly cited: — Flexibility with driving schedule — Increased confidence with legitimization post-regulation — Ability to earn income in a flexible manner — Overall job security — Vehicle requirements, specifically related to the vehicle age, may be a constraining factor for some drivers in the coming years.

Source: CPCS adaption of WSP* (2019) Economic Impact Analysis of the Toronto's Taxicab, Limousine and Private Transportation Companies. *WSP in this context is referring to the architecture and engineering firm.

A study by researchers at the University of Oxford notes similar findings for TNC drivers, i.e. satisfaction with the flexibility provided by the role, but anxiety (potentially over the long-term sustainability of the industry):

After covering vehicle operation costs and Uber's service fee, we estimate that the median London driver earns about £11 per hour spent logged into the app. But while Uber drivers remain at the lower end of the London income distribution, they report higher levels of life satisfaction than other workers. Consistent with a tradeoff between evaluative and emotional well-being observed among the self-employed, they also report higher anxiety levels.²⁰⁹

²⁰⁹ Thor Berger, Carl Benedikt Frey, Guy Levin, Santosh Rao Danda. 2018. Uber Happy? Work and Wellbeing in the "Gig Economy."



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²⁰⁶ New York City Taxi and Limousine Commission. Notice of Promulgation: Driver Income Rules.

²⁰⁷ Parott, J.A. and Reich, M. 2018. An Earnings Standard for New York City's App-Based Drivers Economic Analysis and Policy Assessment.

²⁰⁸ WSP. 2019. Economic Impact Analysis of the Toronto's Taxicab, Limousine and Private Transportation Companies.

In addition, we heard concerns through the consultations of drivers being unfairly removed ("offboarded") from a TNC app, without an effective due process mechanism. Some jurisdictions have responded by providing a mechanism or support for drivers in such a situation.

Strategies to address driver welfare concerns

Some of the strategies we heard in the consultations to address driver welfare concerns included:

- Create a driver advisory panel: In one jurisdiction, primary points of discussion included driver wages and earnings, as well as concerns about being unfairly removed from the app.
- Create an ombudsperson for drivers: Portland has hired an ombudsperson that works with TNC drivers. The ombudspersons are professional attorneys; however, consultations noted that they do not offer legal advice to drivers. Rather, they help drivers work with TNC companies to settle disputes stemming from being offboarded from the app, etc.
- New York City has mandated a minimum pay model for drivers as well as capping the number of licensees.

Capping vehicle licences creates potential for monopoly rents by companies rather than benefiting drivers

As noted, New York City is the only jurisdiction that has implemented a cap on the number of PFHVs. This mechanism was implemented partly in response to congestion and concerns over declining driver wages.²¹⁰ However, whether this mechanism will increase driver wages is unclear:

[PFHV] driver earnings could increase because their overall utilization would increase (demand increases over time, but the supply of vehicles does not, so driver utilization must increase), but this would partly depend on [TNCs] allocating increased revenue per trip to driver pay instead of lowering fares or keeping it as company commission... [emphasis added]²¹¹

4.4.4 Financial sustainability of TNCs

A number of experts raised the financial sustainability of the TNC business model as a potential trend to observe. For example, Uber's 2019 Quarter 3 net loss was approximately \$1.2 billion, according to its press release, though it notes that its ride earnings before interest, tax, depreciation and amortization cover its

A disclaimer on the study notes: "Berger and Frey have no material financial relationships with entities related to this research and were under agreement with Uber when writing this paper, which gave Uber the right to review the paper solely to confirm that confidential information is being represented in a non-misleading fashion, but not to influence the analysis or dispute the findings or conclusions of the paper. Levin and Danda are employees of Uber Technologies. The views expressed in the paper are those of the authors and do not necessarily reflect the views of Uber Technologies."

²¹⁰ New York City Mayor as quoted by the New York Times: "More than 100,000 workers and their families will see an immediate benefit from this legislation."

Fitzsimmons, E.G. 2018. Uber Hit With Cap as New York City Takes Lead in Crackdown. *The New York Times*. https://www.nytimes.com/2018/08/08/nyregion/uber-vote-city-council-cap.html

²¹¹ New York City Taxi and Limousine Commission and Department of Transportation. 2019. Improving Efficiency and Managing Growth in New York's For-Hire Vehicle Sector.



corporate overhead and rides research and development.²¹² Anecdotally, one expert consulted noted that they have heard from one startup mobility company that raising capital has become increasingly challenging.

None of the experts claimed they were experts in this field, nor suggested that they believed a TNC would fail. However, some noted that they saw as a potential implication of this context that rates would begin to rise.

Employee versus independent contractor

Currently, drivers of PHFV for TNCs operate as independent contractors for TNCs. A number of regulators raised the potential implications of new statutes or case law which have the effect that TNC contractors become employees. The most notable example of this is California Bill AB5, which, as we understand it, reinforced through statute a three-element test to determine employee versus independent contractor classification. In Canada, the Supreme Court of Canada granted leave to appeal to hear a case dealing with the terms and conditions of Uber's contracts with drivers. While the hearing at the Supreme Court dealing specifically with the employee versus independent contractor question, depending on the outcome of the case, it could enable further challenges of the current independent-contractor model.

The implication of livery drivers being recognized as employees would result in applying the minimum standards set out in employment standards laws, such as minimum wages, vacation, minimum shifts, employment insurance premiums, etc., which in turn could result in higher labour costs to provide for-hire services. It would also provide different mechanisms for employees to unionize.

From a municipal regulatory standpoint, the implication seems to be how it would affect the cost and service to consumers, as well as the overall sustainability of the industry. To the extent it was raised in the consultations, at least one regulator noted that it is not taking any position on the issue currently, but is monitoring developments.

4.4.5 Concerns over the interaction between applications, drivers and passengers

One US expert consulted noted that an emerging issue is the consequences of app algorithms on app users (drivers, passengers and regulators). The expert noted there is going to be a role for regulators and government to ensure that apps are not deleteriously affecting app users. One high-level concern that was noted related to privacy, and that the expert observed some jurisdictions banning facial recognition.

Another specific example of a potential concern related to the algorithm for requesting drivers. The expert noted that in addition to proximity, other factors influence how apps dispatch trips, notably driver acceptance rates and driver ratings. The expert noted that they had raised the question with industry — what if drivers of colour are across the board lower rated by passengers? — and heard back from some industry members that they have observed this to occur in practice. In other words, while there is the temptation to view apps as an unbiased dispatch system, they can nonetheless be impacted by potential biases in user inputs.

The expert summarized the key question: "How to do we determine the fitness of a computer program?"

Wells et al. 2019. Supreme Court to hear arguments about enforceability of arbitration clauses. https://www.osler.com/en/resources/regulations/2019/supreme-court-to-hear-arguments-about-enforceability-of-arbitration-clauses



Uber. 2019. Uber Announces Results for Third Quarter 2019. https://investor.uber.com/news-events/news/press-release-details/2019/Uber-Announces-Results-for-Third-Quarter-2019/default.aspx

²¹³ Uber Technologies Inc., et al. v. David Heller

On one hand, given that Calgary and other municipalities have a role in rate setting, they will need to have some ability to regulate apps, which Calgary does. On the other hand, as apps may need to work across jurisdictions (not only within the metro area, but beyond), municipal regulators may need to coordinate responses/approaches to be effective. To this end, some of the implications are:

- Municipal regulators will need to ensure they have persons that have both a combination of technical, data analysis and public policy backgrounds to monitor the performance of apps
- There is likely a greater role for coordination amongst jurisdictions.

4.4.6 Importance of access for people with disabilities

Ensuring accessibility for people with disabilities was likely the second most frequently mentioned trend by experts. In this regard, Calgary's Accessible Taxi Incentive Program and Centralized Dispatch System Pilot was considered a model of interest and/or effective practice in the industry.

With regard to the concept of central dispatch, one jurisdiction in particular was planning to move to a centralized dispatch system for *all* taxi services. The discussions noted that because of the relatively small size of taxi fleets rather than TNC fleets (though there was only anecdotal information on TNC fleets), it is not possible for existing, individual taxi companies to offer a high-level of customer service. Specific issues cited included: (1) a customer having to call multiple taxi companies to find a vehicle in the area and (2) longer wait times due to the relatively smaller fleets. While these issues were raised in the context of taxi fleets broadly, they could likewise apply to accessible fleets specifically.

4.4.7 Emergence of autonomous vehicles

One of the most frequently mentioned trends was the potential adoption of autonomous vehicles, and the potential implications for regulating the livery sector. Generally, when a timeline was mentioned, experts anticipated that it would be outside of the five-year window explored in this study. Some stakeholders also noted the potential for autonomous vehicle testing in the shorter term.

Some experts mentioned uncertainty over whether autonomous vehicles will operate more in a "shared/pooled" model or be purchased as privately held vehicles (similar to how most vehicles are operated today). One jurisdiction in particular noted that regardless of when autonomous vehicles are ultimately widely adopted, it is planning for a future in which autonomous vehicles are operating in shared fleets, rather than as privately held vehicles. The expert argued that (1) autonomous vehicles will be more expensive than non-autonomous vehicles, discouraging private investment and (2) some costs, such as insurance, will be higher. Other research has also agreed with these projections, noting the decrease in individual user costs comes from increasing the utilization of private vehicles from 4%, as they are currently.²¹⁵

The related implication is that there may still be a role for municipal regulators to regulate the sector with respect to use of road space at least. Other potential implications that come to mind:

• Regulators will need to focus to a greater extent on regulating mobility operators (companies) rather than drivers.

²¹⁵ Arbib and Seba. 2017. Rethinking Transportation 2020-2030 The Disruption of Transportation and the Collapse of the Internal-Combustion Vehicle and Oil Industries



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- There will be some continued need for operator or "attendant" training, particularly with respect to some of the other functions that drivers perform, such as assisting those with limited mobility, etc. 216
- Vehicle safety will require the monitoring of complex digital systems, thus may be regulated to a greater extent by other levels of government.

4.4.8 Convergence of goods movement and livery transport

Deliveries in off-peak hours

Through the research, the convergence of livery and goods movement vehicles was noted, e.g. the potential for drivers to make deliveries, in particular during off-peak hours. While we do not anticipate any implications with respect to driver eligibility or licensing, it would be important that any approach taken to address situations such as congestion, curb space, etc. consider deliveries as well.

Interest by public health authorities related to food deliveries

Given the rise of food deliveries, one expert noted that they were seeing interest by public health authorities in understanding the regulation of the sector.

Copp and Hanson. 2019. Learning from Rural Innovation: What can Volunteer Driver Programs Teach us About Planning for Autonomous Vehicles? Canadian Transportation Research Forum, 2019 Annual Meeting.



²¹⁶ In a study of volunteer drivers, Copp and Hanson found that many drivers performed additional functions beyond driving (e.g. passenger assistance).

5 Conclusions

Calgary's Livery Transport Bylaw 6M2007 (Livery Transport Bylaw) is the legislation that regulates transport services in Calgary. Regulated livery transportation services in Calgary include limousines, taxis and private for hire vehicles (PFHVs).²¹⁷ PFHVs are associated with transportation network companies (TNCs).

A team led by CPCS Transcom Limited (CPCS) compared livery regulatory practices in Calgary against 15 other jurisdictions in North America, through a literature review and interviews with regulatory experts. Through this scan, we identified areas of the regulatory framework where Calgary is consistent with industry practice and other areas meriting further examination.

5.1 Areas Where Calgary is Consistent with Industry Practice

Regulation of livery vehicles in The City of Calgary followed effective industry practices cited in the jurisdictional scan in several areas, including:

- Requiring all participants except limousines to submit GPS-based trip data. Multiple jurisdictions cited
 the importance of these data in studying the impact of livery trips on the transportation system, and
 offered suggestions for ensuring compliance with these requirements.
- Having/putting in place minimum training requirements for all industry sectors. While there is limited
 evidence that training itself enhances driver safety, a number of jurisdictions recognized the
 importance of training all drivers to serve customers with disabilities, along with other core safety
 requirements.
- Allowing flexibility to all industry participants to set fares through an app, provided those fares are transparent and agreed to prior to prospective customers beginning their trip.

5.2 Areas Meriting Further Examination

There were also areas in which the regulation of livery vehicles in Calgary was not necessarily in line with broad industry practice, or otherwise merits further examination:

- Whether a cap on taxis and/or TNC PFHVs is (still) warranted: prime considerations in this discussion
 are implications on congestion, service quality and driver earnings (see Section 4.1.4), as well as
 potential financial implications to licence holders and financial risks to The City.
- Vehicle requirements, particularly for taxis: These could include harmonizing vehicle age limits for taxis with TNCs, or removing them. It could also include minimizing marking requirements for taxis and/or making any items that must be affixed to the vehicle (e.g. plates) removable.

²¹⁷ PFHVs are vehicles used to provide services arranged through a Transportation Network Company [TNC] app.



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- Vehicle requirements related to street hails: There is evidence that smartphone penetration in Alberta is high and cash payments are decreasing across Canada in general. In addition, given the prevalence of livery vehicles since the entry of TNCs, wait times are generally short.²¹⁸ While taxis have historically been the only industry segment allowed to accept street hails, these findings raise the question as to the degree to which street hails are a lucrative market given that additional requirements exist to allow for street hails (notably cameras). Rather than requiring all taxis to maintain additional requirements (e.g. cameras), perhaps these could be limited to those vehicles that accept street hails.
- Whether The City should continue licensing drivers directly: some jurisdictions no longer directly license drivers. Driver licensing fees in Calgary were also higher than in most other jurisdictions, while many jurisdictions no longer require drivers to pay a licensing fee.²¹⁹ For clarity, this comparison was based solely on the regulated licensing fee, not a comparison of training fees, etc., which also exist in other jurisdictions. However, most jurisdictions that do not license drivers directly continued to require regular (sometimes daily) data transfers of driver records from companies, as well as ongoing audits of driver records.
- Whether there is opportunity to provide greater flexibility for street-hailed and telephone-hailed trip fares, provided the fare is upfront or otherwise transparent and predictable, enabled by GPS-based meters (see Sections 3.6.2 and 4.1.7).
- Whether Calgary's bylaw should incorporate additional minimum safety and privacy requirements for apps.

We provide a non-exhaustive menu of alternative options in Figure 5-1 below.

²¹⁹ Calgary does provide TNCs an alternative fee mechanism to pay driver licensing fees directly.



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²¹⁸ In Toronto for example, wait times are under four minutes on average.

City of Toronto. 2019. Research & Analysis The Transportation Impacts of Vehicle-for-Hire in the City of Toronto.

Figure 5-1: Summary of Options for Regulatory Model

Dimension	Calgary Practice	Alternatives (Non- Exhaustive)	Advantages/Disadvantages/Considerations of Alternatives
Should regulatory bodies license drivers directly?	Calgary licenses livery drivers directly	Mandate companies to conduct driver eligibility checks and audit company compliance	 Limits administrative costs, which can reduce licensing fees. Shifts accountability to companies. Risk of lower compliance by drivers, though some jurisdictions indicated that this did not occur over the long run. While one Canadian jurisdiction only conducted ad hoc driver audits, many jurisdictions required ongoing data submissions by companies (i.e. daily) and ongoing auditing by at least one full-time-equivalent (FTE).²²⁰ For clarity, there was not necessarily universal agreement on what would be a sufficient number of audits to be conducted; however, a number of jurisdictions were satisfied that they were meeting their regulatory objectives through ongoing audits rather than direct licensing of drivers.²²¹ Overall, an approach involving ongoing rather than ad hoc audits appeared to be more effective in terms of being able to estimate the compliance rate on a regular basis.
Is driver training needed?	Two-day Livery Driver Training Program focusing on "driver safety, passengers with disabilities and relevant bylaw information." 222	 Remove training requirements Include additional training requirements (customer service, navigation, etc.) Mandate refresher training 	 Most jurisdictions indicated that drivers should be trained in providing service to people with disabilities (particularly as disabilities may not manifest themselves visibly), as well as familiarized with core safety requirements. Some jurisdictions still have additional non-safety training requirements (e.g. navigation), but some experts noted that these are in the domain of company management. There is limited evidence that training improves driving safety, but some have noted that this relationship has not been effectively studied. To the extent that training is viewed as important, it may be beneficial to consider periodic refresher training.
Should	No cap	1. Require cap	New York City, which has much higher levels of congestion and a high number of full-

²²⁰ One Canadian jurisdiction mentioned specifically that it has one FTE clerk audit records. If extrapolated to Calgary based on population, this would be equivalent to approximately two to three FTE in Calgary.

https://www.calgary.ca/CSPS/ABS/Pages/Livery-Transport-Services/Taxi-Drivers-Licence-Application-Guidelines.aspx



²²¹ For example, one other Canadian jurisdiction noted that it sought (but did not receive) advice from federal law enforcement entities about what would be a reasonable number of inspections to be conducted in regard to another area of their enforcement program.

Dimension	Calgary Practice	Alternatives (Non- Exhaustive)	Advantages/Disadvantages/Considerations of Alternatives
Calgary cap PFHVs?			 time drivers, is the only jurisdiction to implement a cap. Modelling shows that there will likely be only a small reduction in congestion in the "core," as livery vehicles will continue to gravitate to where demand is highest. Service quality in terms of wait times will likely decrease in non-core areas. Might increase driver earnings, but dependent on companies passing along increased earnings. High likelihood that economic profits will be captured by licence holders and not necessarily drivers. While congestion is a concern, there are economic benefits that arise from the improved transportation accessibility following the introduction of TNCs.
Should Calgary cap taxis?	Cap on the number of vehicles.	1. Eliminate cap	 Depends on answer to question about capping PFHVs. If PFHVs are capped, then continuing a cap on taxi licences would follow the same rationale. If PFHVs are not capped, then no significant congestion-management or driver earning rationale to cap taxi licences. Risk of further impact on existing licence holders and, in turn, financial risk to The City. (Note: this study does not opine on the nature of this risk.)
What should vehicle age limits be?	Taxi – eight years TNC/PFHV – 10 years	 Normalize age limit to 10 years Remove age limit, but mandate increased inspections beyond year 10 (+/-). 	 10 years is the maximum observed in the scan. If the different age limit is motivated by differences in annual vehicle kilometres in both subsectors, consider specifying maximum of 10 years or a kilometre limit, whichever is achieved first. (In addition, anecdotally we heard that taxi vehicles are no longer being utilized to the same extent, e.g. double shifts). Vehicle age is only a proxy for safety. A specific age limit is highly enforceable; a vehicle may be able to safely operate beyond that.
What taxi vehicle markings are required?	Distinctive vehicle markings required for taxis	Limit markings to items that could be removed from vehicles when out of service.	 Consultations noted that trade-dress requirements are increasingly viewed as company-management decisions; however, for vehicles accepting street hails, there is still a need for some regulatory-mandated identifier. One jurisdiction noted that its safety messaging is increasingly focused on confirming that licence plate numbers match those in the app (rather than the presence of a logo); thus, the licence plate could be the primary identifier, although this would be an issue in Alberta where vehicles only have rear plates.
What fare regulation is needed for street- or	Maximum metered fares with flat fares allowed in certain	Allow for upfront fares or flat-fares to a greater extent	 Some jurisdictions allow for fare meter discounts. Calgary's fare regulation would allow for fare discounts, but does not specifically allow for upfront pricing (i.e. flat rates) except in certain circumstances. Though in principle fares could be fully dynamic, fare predictability is also likely to be a



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Dimension	Calgary Practice	Alternatives (Non- Exhaustive)	Advantages/Disadvantages/Considerations of Alternatives
telephone- based trips?	circumstances		consideration (e.g. for people on fixed income). Thus, should The City pursue this option, some consideration should be given to ensuring the fares could be predicted in advance (e.g. any fare premiums/discounts must be based on certain times of day or days of week; rates must be filed in advance and only changed quarterly, etc.).
What further regulation of apps?	Calgary requires TNC (but not taxi apps) apps to provide vehicle and driver information upfront, as well as provide GPS tracking	1. Require additional privacy (e.g. masking phone number from driver and vice-versa) and safety features (e.g. GPS location sharing, panic buttons, passenger/driver-code matching)	 Some other jurisdictions have additional safety requirements within their regulatory standards for apps. May be a non-issue as certain industry participants are already pursuing these features. Given the pace of change, may be an area where beyond minimum standards, authority is granted to add/remove requirements through administrative process.

Source: CPCS



5.3 Trends Affecting the Regulation of the Livery Sector

Primarily through interviews with regulatory experts, we also identified the following trends affecting the regulation of the livery sector, in the next five years:

- Emergence of new technology and modes: need for flexibility
- Continued interest in congestion, emissions and access
- Addressing driver welfare
- Financial sustainability of TNCs
- Concerns over the interaction between apps, drivers and passengers
- Importance of access for people with disabilities
- Emergence of autonomous vehicles
- Convergence of goods movement and livery transport.



Appendix A Organizations Consulted

We held approximately one-hour interviews with representatives from the following organizations:

- British Columbia Ministry of Transportation and Infrastructure
- City of Edmonton
- City of Hamilton
- City of Toronto
- City of Mississauga
- City of Ottawa
- Quebec Ministry of Transport
- Portland Bureau of Transportation
- King County
- Colorado Public Utilities Commission
- City of Houston
- City of Los Angeles
- City of Chicago
- New York, Taxi and Limousine Commission
- San Francisco Municipal Transportation Agency



Appendix B Interview Guide

City of Calgary

Municipal Best Practices Review Livery* Transport Regulatory Frameworks

Questions for International Experts

The City of Calgary is conducting an accelerated review of its Livery* Transportation Bylaw. We would appreciate your time in answering the following questions.

- Opinions provided in this discussion will be reported in **aggregate** with attribution provided at a country level (i.e. "Canadian expert" or "US expert"), unless permission is otherwise granted for additional attribution.
- A list of organizations consulted will be provided.
- Detailed notes will be retained confidentially by CPCS and its subcontractors.

Questions for Discussion:

- 1. What **regulations** govern **taxis**, **TNCs/private-for-hire vehicles and limousines** ("livery") in your jurisdiction? Are there any regulations by other levels of government that apply to your jurisdiction? *Please refer to the definitions below, if needed.*
- 2. What are the **policy objectives** of livery regulations in your jurisdiction (e.g. safety, efficiency, customer service, etc.)?
- 3. What were some of the **key considerations** in the debate on **regulating TNCs**, including **"leveling the playing field"** with taxis?
- 4. What areas of existing regulation have worked well, and why? Do you consider any areas of your regulation innovative?
- 5. What areas have been challenging to regulate?
- 6. What are the **key emerging trends** that you anticipate will **affect the regulation of the sector** in the next five years?
- 7. Any other **lessons learned** come to mind based on recent experience?
- 8. Do you publish or could share any data on the number of licenses or trips taken by taxis and TNCs/PFHV in the past 5-10 years? Any other contacts that you could suggest who could offer insight into these questions?
- 9. Would you be willing to attribute any comments to yourself or your organization?

Thank you! If we had any further specific clarification questions, could we follow up by email?



*Select Definitions Used in Calgary

"Livery Vehicle" means a Limousine, a Taxi or an Accessible Taxi or a Private For Hire Vehicle;

"Limousine" means a Motor Vehicle including a Stretch-Limousine, Sedan-Limousine or Specialized Limousine...

"Private For Hire Vehicle" or "P.F.H.V." means a Motor Vehicle which is used to provide for the transportation of persons for compensation and for which rides are exclusively arranged through an App administered or promoted by a Transportation Network Company;

"Taxi" means a Motor Vehicle which has a valid [taxi licence] joined to it;

"Transportation Network Company" means a Person other than a Brokerage, who sells, leases, administers, promotes or otherwise makes available an App;



Appendix C New Quebec Regulatory Model

1. Jurisdictional Background

The main regulatory authority for taxis, limousine and ridesharing companies operating in Montreal is the provincial government, i.e. the Quebec government. After having conducted three one-year pilot projects allowing Uber to operate in the province despite strict licence quotas applicable only to taxis, the Quebec government passed Bill n° 17: *An Act respecting remunerated passenger transportation by automobile* on October 10, 2019.²²³

The main feature of the regime is that the quota system for taxi licences, which used to be set for each operating zone ("agglomération") is abolished entirely and replaced with a liberalized system with no regulatory restrictions on the supply of taxi services, along with compensations to taxi licence holders.²²⁴ The new Act will come into force next year, in October 2020, with a few exceptions.²²⁵ No provisions of the new regime are specific to limousines.²²⁶

The policy objectives of the new regime, as stated in Bill n° 17 (s. 1), are:

- Passenger safety
- Transparency of fares

- 1. \$500 million from the Government Treasury;
- 2. \$270 million from a temporary royalty of \$0.90 per taxi and Uber ride. The royalty will be removed when \$270M is reached (in approximately three years).
- 3. \$44 million from royalties paid by Uber.

See: https://www.transports.gouv.qc.ca/fr/salle-de-presse/nouvelles/Pages/aide-financiere-equivalant-cout-permis-taxi.aspx and https://ici.radio-canada.ca/nouvelle/1346206/lindustrie-taxi-reactive-actions-collectives-uber-quebec

²²⁶ The current regime treats limousines as a subcategory of taxis. It is expected that the new regime (ref. upcoming regulation) will deal with limousines in the same way. As such, most provisions applicable to taxis in the new regime can reasonably be attributed to limousines.



 $^{{}^{223}\,}http://www2.publications duque bec.gouv. \underline{qc.ca/dynamicSearch/telecharge.php?type=5\&file=2019C18A.PDF}$

The provincial government has set aside \$814M to compensate taxi license owners. The compensation is to be based on *purchase value*. Licence owners allege that market value (when market was at its peak in 2014) represents "at least \$1.5 billion". A lawsuit by taxi licence owners is ongoing. The \$814 million compensation package comprises the following:

²²⁵ Two provisions came into effect on November 10, 2019. Firstly, taxi drivers are now allowed to use dynamic pricing (higher fares in periods of high demand, like Uber), and secondly, a "National taxi and ridesharing consultation table" is established to "foster concerted action between the main stakeholders in the remunerated passenger transportation by automobile industry" (s. 164).

- Equity between taxis and other private transportation entities (e.g. Uber, Eva)
- Fostering innovation and technology in mobility
- Access to transportation for people with disabilities
- GHG reduction/electrification.

Many of the specifics of the new regime (training required for drivers, applicable government fees, mechanical requirements for vehicles, etc.) are to be laid out in a new accompanying regulation, which is yet to be drafted. Given that this regulation is scheduled to come into force on October 10, 2020, a preliminary version should be issued by the Quebec government in the coming months.

The regulatory framework preceding Bill n° 17, which remains in force until October 10, 2020, consists of the provincial Act respecting transportation services by taxi,²²⁷ the provincial Taxi Transportation Regulation,²²⁸ and the City of Montreal's By-Law Concerning Taxi Transportation. 229 Bill n° 17 replaces the current provincial Act, and the coming regulation will replace the current provincial *Taxi Transportation Regulation*.

It is not clear yet whether or not the city's taxi regulation will be replaced completely or in part by the provincial regulation to come. It is expected that the new regime's features, which will be fully known when the regulation is passed, will mainly give the City of Montreal an enforcement role with regards to the provincial provisions.

2. Driver Requirements

As per Bill n° 17 (s. 10), the general requirements for drivers are:

- (1) the person has held a **driver's licence** of an appropriate class in accordance with the Highway Safety Code and the regulations for at least 12 months, and was not under a sanction described in section 106.1 of that Code in the 12 months preceding the application or at the time the application was filed;
- (2) the person has completed training on safety, transportation of persons with disabilities, and the other subjects prescribed by regulation of the Minister and has done so in accordance with the conditions prescribed by that regulation;
- (3) the person can understand, speak and read French;
- (4) the person has passed an examination on the subject matters to be covered by the training, the conditions and content of which are established by regulation of the Minister;
- (5) the person's driver's licence is **not subject to the condition of driving a road vehicle mandatorily** equipped with an alcohol ignition interlock device approved by the Société;

²²⁹ http://ville.montreal.qc.ca/pls/portal/docs/page/bur taxi fr/media/documents/RCG10-009 en.pdf



²²⁷ http://www.legisquebec.gouv.qc.ca/en/showdoc/cs/S-6.01

http://www.legisquebec.gouv.qc.ca/en/showdoc/cr/S-6.01,%20r.%203

- (6) no authorization granted to the person under this Act is suspended at the time the authorization application is filed or was cancelled, except at the person's request in the five years preceding that time; and
- (7) the person has **no judicial record related to the aptitudes required and appropriate conduct to be a driver** of an automobile for the purpose of offering passenger transportation.

3. Company Requirements

As per Bill n° 17 (s. 5 and 6), the new regime creates two categories of entities:

- a) Transportation systems ("systèmes de transport") = taxi company / Uber / Lyft. The transportation systems become responsible to maintain a register of drivers and vehicles. An "operator" ("Répondant") is designated within each transportation system and will be the touchpoint for the ministry of Transportation.
- b) **Dispatchers** ("répartiteurs") are entities that distribute trip requests to drivers, via either a natural person or a technological means. It is an alternative model mostly designed for smaller taxi companies, especially in rural areas. In this model, background checks and registering vehicles are the responsibility of individual drivers.

4. Operating Conditions

In the new regime, taxis are defined as "a qualified automobile used to offer remunerated passenger transportation for which the trip fare is calculated, in any circumstances or at the customer's request, in accordance with the rates established by the Commission [des transports du Québec]" (s. 114).

The new regime confers exclusivity to taxis for:

- Bookings made by phone (s. 147)
- Street hailing (s. 147)
- Agreements with hospitals and other health institutions for the transport of patients (s. 148).

5. Fleet Size Restrictions

The new regime does not include fleet size restrictions.

6. Rate / Pricing

For taxis, fares may only be calculated according to the rates established by the Commission des transports du Québec, unless the trip request is made by a technological means that does not require human intervention (s. 93). This is a major change brought by Bill n° 17, which allows taxis to use dynamic pricing, provided that the maximum price of a ride is made known in advance to the customer, and for which the customer has provided consent (s. 93).



An "antidumping" provision is introduced in order to prevent unfair competition. The price charged for a ride cannot be less than the amount paid to the driver by the passenger or customer (s. 94).

7. Vehicle Requirements / Safety

The owner of an automobile used for passenger transportation services is required to ensure its maintenance and to have the necessary repairs made (s. 73). Specific vehicle requirements are to be set in the upcoming regulation. For instance, if the kilometrage on the odometer or the age of the automobile, determined based on the model year, exceeds the limits prescribed by the regulation, the automobile must be subject to a mechanical inspection and obtain a certificate (s. 73).

Taxis will need to have a roof light, and these will be restricted to taxis (s. 145).

8. Government Fees / Licensing Fees

Government fees and licensing fees are to be set out in the upcoming regulation.

9. GPS Tracking / Data

Starting October 10, 2020, all automobiles used for passenger transportation services will need to be equipped with a real-time geolocation device that complies with the conditions prescribed by the upcoming government regulation (s. 20).

The owner of a qualified automobile must ensure that the real-time geolocation device transmits data on the location of the automobile, and whether or not it is providing a trip, to the following recipients:

- (1) a municipality, an intermunicipal board or another public body exercising the jurisdiction conferred on it by law as regards shared transportation in the territory in which the automobile is used and that, at its request, has been designated by the Minister; and
- (2) a transportation enterprise or other enterprise providing transportation-related services that is designated by the Minister. (s. 72).



