

A Multi-City Analysis of the Taxicab Industry's Regulatory Structure
and Market Models in the United States

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ABSTRACT

The Taxicab Industry¹ in the United States faces problems in multiple dimensions that encompass customers, service providers, government and regulators. It is essential that the regulatory framework surrounding the taxicab industry in the United States be critically analyzed to evaluate realistic policy options to reduce the structural inefficiencies that presently plague the taxi industry. This paper seeks to undertake a city based economic analysis to evaluate various options and make policy recommendations towards further improvements. The paper begins with an introduction to the taxicab industry in the United States and explores its evolving market structure. The paper initiates a macro level analysis of the taxi industry, and then proceeds towards a micro level analysis that encompasses all the entities that form part of the taxi industry. This is followed by an introduction to the regulatory structure and accompanying economic market models. The analysis employs economic principles to highlight the unique city-specific regulatory structures and to understand their relevance in the taxi market. The thrust of the paper would involve understanding and interpreting the causes underlying the problems. Utilizing these broad level findings, a narrow set of stringent regulatory reform measures would be presented towards improving the business and service environment surrounding the taxicab industry in the United States.

INTRODUCTION

¹ In the paper, “Taxicab Industry” would cover all the different entities that form part of the industry – customers, taxi drivers, regulators.

The taxicab industry in the United States comprises of several different regulatory structures unique to cities across the country. The regulations have evolved over several decades. The evolution of the taxi industry goes back to the early part of the twentieth century, with the growth in urban population along with economic development. The urban population growth was primarily due to the migrant population arriving to the United States, mainly from Europe². Along with the exponential growth in population, the automobile was finding its unique place in the lives of people by revolutionizing transportation. Such changes positioned the taxicabs as a key ingredient in the socio-economic lives of millions of people.

Such changes over the decades have transformed the role of the taxicab. The industry's basic business model that encompasses the key players in the Industry which include the taxi drivers³ and consumers at opposite end of the taxi market hasn't changed much. However, there have been significant changes in the regulations that serve to define the taxi industry.

Such complexities in the regulatory environment have given rise to many problems at both the micro and macro levels. These include poor service levels, demand supply imbalances, underutilization of the resources, decreasing customer satisfaction levels, among others. These issues highlight the structural problems of the taxicab industry in the United States.

TAXI INDUSTRY STRUCTURE

² Gilbert G., Samuels, R.E., *The Taxicab*, The University of North Carolina Press, Chapel Hill & London, 1982, page 25

³ The *taxi drivers* can be divided into two categories, with different legal status in the United States. A driver may be an independent contractor, legally covered under the Independent Contractor Statutes, or may be a franchise driver, covered under the Franchise Law.

The Taxi industry structure comprises of different kinds of institutional players who hold a unique legal status. The structure is shown by using a sloping curve approach that maps out the features of the different taxi firm models in the United States.

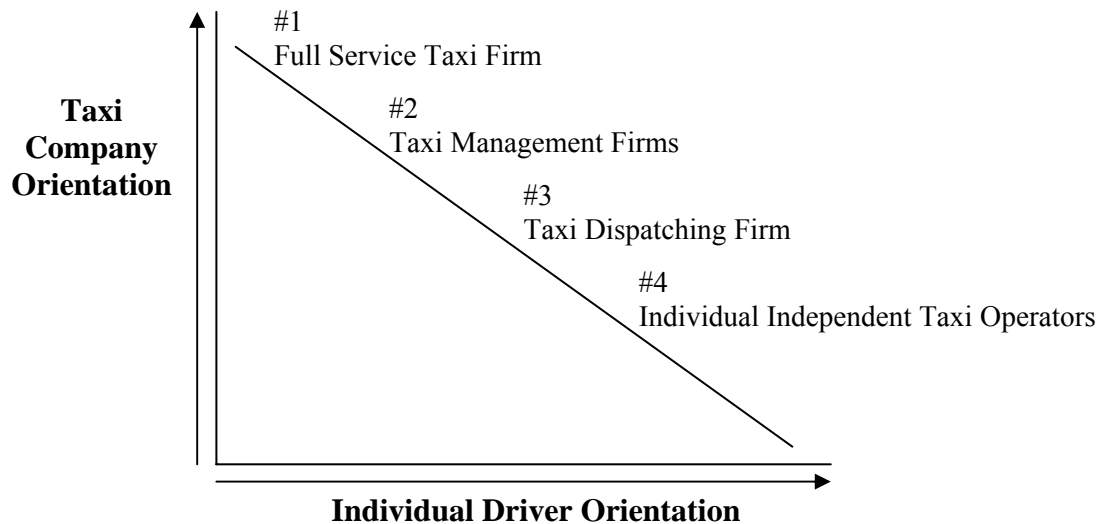


Figure 1: The Sloping Curve Approach of the Taxicab Industry⁴

In the above figure, the Category #1 represents the full service taxi firm that is closely tied to a taxi company orientation model. Such full service taxi firms usually have full-time employee drivers and provide a comprehensive service package that includes radio and GPS (Global Positioning System) technology supported dispatching service, fully insured fleet of vehicles, and extremely well advertised service. Along with the comprehensive services, such firms initiate contracts with major tourism and social services agencies to provide a one stop service for all kinds of taxi service. Such firms are

⁴ Mundy, R.A, *Benefits of a Full Service Taxicab Company to the Taxicab Industry and the Consumers*, TLPF White Paper. (Submitted for review, August 2005, to Taxicab Regulation Committee, Taxicab, Limousine and Paratransit Association)

known for high service and efficiency levels and are often market leaders due to their innovative and customer friendly business models.

Category #2 in the diagram represents a taxi firm model which comprises a group of permit/license owners who lease their vehicles and the permits to independent contractors for a monthly fee. The services levels are slightly less compared to the category #1 firms, but still very competitive and include most of the service needs of customers.

The third category of the taxicab firm is distinguished by the presence of individual-owner-drivers who run their own vehicles, along with all the service and legal requirements. This business model has been found across many cities in the U.S. due to the highly fragmented nature of the taxi industry. Also, the independent nature of such a job permits the owner-operator to decide what is the most optimal operating needs for his/her taxi service.

The fourth category in the taxi industry structure, arising from the deregulation of the taxi industry, is represented by a strong emphasis on individual driver orientation. The individual driver operators (with a single permit) provide taxi service using their own vehicle or leased vehicles. Due to their independent nature of operations, they don't have access to any radio-dispatching, have very little insurance coverage. This is due to their very restrictive cost-revenue model that does not permit them to utilize economies of scale, as compared to full service taxicab service providers. The following is a tabular presentation of the four taxicab firm models discussed above:

Taxi firm Structure	Individual Driver or Independent Contractor	Collective Service Provision⁵	Ownership of Vehicles	Provision of Insurance Coverage
Full Service Taxi Firm	Independent Contractors	√	Fleet Ownership	√
Taxi Management Firm	Independent Contractors	√	Lease Vehicles	√
Taxi Dispatch Firm	Independent Contractors	Partly	Lease Vehicles	√
Independent Taxi Operators	Owner-operator	Very little	Lease Vehicles	Very little

Table 1: Tabular representation of the different taxicab firm models

REGULATORY STRUCTURE OF THE TAXI INDUSTRY

The taxicab regulations are in most cases under the purview of the local governments officials. The ordinances define the various aspects related to the functioning of the Taxicab Industry which include policy guidelines such as fare setting, entry and exit regulations, record keeping requirements, employee-employer relationships, among others. One of the fundamental requirements before the start of taxicab operations at any location is the requirement to obtain the Certificate of Public Convenience and Necessity.⁶ This certificate must be obtained by prospective taxicab firms/operators. The certificate signifies that there is a demand for more taxicabs in the specified area. Such demand estimations, in turn, form the basis for firms to apply for additional permits/licenses to the city councils. This certificate requirement was found in all the taxicab models undertaken as part of this study.

⁵ Collective Services Provisions include: Radio dispatch service, credit cards processing, advertising, fleet maintenance.

⁶ The requirement of obtaining the Certificate of Public Convenience and Necessity was found in all city ordinances relating to taxicab operations

The set of regulations vary significantly from city to city. The regulations that define the taxicab structure in different cities are dependent on several factors such as population size, income levels, and availability of other transit services, among others. For instance, there are no entry and exit conditions, in Seattle and San Diego, thus giving rise to an open market oriented economic model. On the other hand, in New York City and Boston, entry is effectively restricted through the taxicab medallion system. In Portland, a mixed model arises, wherein regulations require setting a minimum number of taxicabs that must be in operation for firms to operate (15 taxicabs are required before any operation can be started).⁷ A similar regulatory environment exists in Dallas/Fort Worth, where minimum of 25 taxicabs are required before the start of any taxicab operations.

ECONOMICS OF THE TAXI INDUSTRY⁸

Applying economic theory to the Taxicab Industry provides valuable insights into the prevalence of the different market models such as perfectly competitive markets and natural monopolies.

In the perfectly competitive market, there would be open entry and exit conditions and it is assumed that there would be perfect availability of information to the customers. Thus, the taxi firms would act as price takers, with little or no market power over prices.

On the other hand, in the case of a natural monopolistic market model⁹, the market environment would be characterized by economies of scale and decreasing overall

⁷ *Taxicab Regulations*, http://www.portlanonline.com/ausitor/index.cfm?&c=28593#cid_16172

⁸ Parts of this section are also used in a white paper to be published later this year. The paper is titled “*Benefits of a Full Service Taxicab Company to the Taxicab Industry and the Consumers*”, Center for Transportation Studies, UM-St. Louis.

⁹ Gilbert G., Samuels, R.E., *The Taxicab*, The University of North Carolina Press, Chapel Hill & London, 1982, page 150

costs. This would however be applicable mainly in the case of larger firms as they would be able to maximize on their resource utilization and act as price setters. Such markets exhibit explicit constraints to the end users and dictate the market price, demand and supply. This market model is a reality in several cities and raises questions with regards to the negative externalities that may arise due to its adoption.

In any economic model, information is a key ingredient for sustaining a decision making process. This assumption is the distinguishing feature of the taxi market model as well. However, the lack of information to the consumers (not being able to compare services provided by different taxi operators as compared to other service industries) changes the behavior and outcomes of exchanges that take place in the local taxi markets. This characteristic handicaps the market process and deems it susceptible to the perils of market imperfections. It follows that the perfectly competitive market model brings out several inconsistencies in the industry functioning and performance. This is primarily because in contrast to other service industries, the customer's transactions costs¹⁰ (in terms of time and effort) towards evaluating different options are very high. Thus, limited knowledge of the market prices and service availability means that customers don't always know what the best price of the taxi service is available to them. In this case, they are left at the mercy of the cab drivers, who very often take advantage of this information asymmetry and charge unjustified higher prices. This can be looked at as a negative externality to the taxi users due to the imperfect information availability.

MULTI-CITY ANALYSIS OF TAXI REGULATIONS

¹⁰ Gallick E.C., D.E. Sisk, A Reconsideration of Taxi Regulation, *Journal of Law, Economics and Organization*, Vol.3, 1987, pp 117-128.

In this section, the regulatory structures unique to four cities in the United States are presented. The section consists of a thorough introduction to the city specific codes and ordinances and combines findings of major studies done on each of the taxi markets.

NEW YORK CITY

The New York City Taxi and Limousine Commission (TLC), founded in 1971, licenses and regulates New York City's medallion (yellow) taxicabs, for-hire vehicles, commuter vans, paratransit vehicles and certain luxury limousines. It licenses and regulates over 50,000 vehicles and approximately 100,000 drivers, and undertakes safety and emissions inspections of the 12,187 medallion taxicabs three times each year, and holds numerous hearings for violations of City and TLC rules and regulations.¹¹

The Medallion System: The medallion system was introduced in New York City to address problems related with an oversupply of taxis that were leading to decreasing driver earnings and congested city streets. After the adoption of the Haas Act in 1937, issuance of further taxicab licenses was restricted. New York City's 12,187 yellow medallion taxicabs comprise a \$1.4 billion industry serving about 240 million passengers a year.¹² For more than five decades, no new taxi licenses have been issued making the taxicab medallion the central symbol of the regulatory system. However, regulations

¹¹ New York City Taxi and Limousine Commission,
<http://www.ci.nyc.ny.us/html/tlc/home.html&frame=/frame/travel.html>

¹²Schaller Consulting Homepage. *The New York City Fact book*,
<http://www.schallerconsult.com/taxi/taxifb.pdf>. Accessed April 12, 2005.

extend well beyond the medallion cap in the industry.¹³ Some criticisms hailed at the medallion system include:

1. Attempts to improve driver earnings by the TLC through taxi fare increases would not be a viable solution because of the medallion system, which essentially imparts benefits of additional revenue to the fleet owner.
2. The medallion system serves as a protectionist barrier for the taxi owners from the greater competition and thus would ensure poor levels of service and reliability.¹⁴

Figure 1 below reflects the increasing prices of the medallion rates. Even after accounting for inflation rates and standard of living increases, the rates are exceedingly high and reflect the impact of stifling the licensure system in New York City.

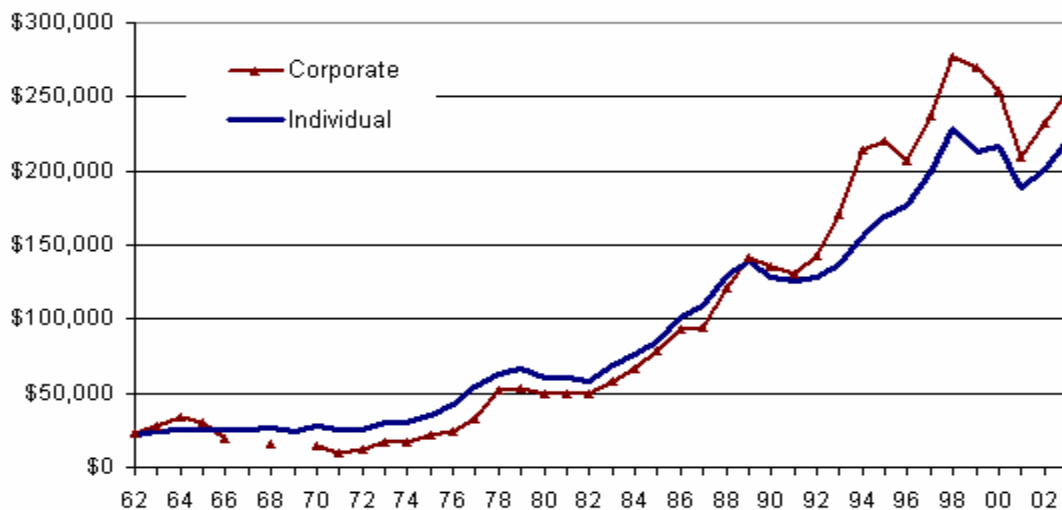


Figure 1: Taxi medallion prices, 1962-2003 (Average of monthly prices)¹⁵

¹³ Schaller, B., Gilbert, G., *Villain or bogeyman? New York's Taxi Medallion System*, <http://www.schallerconsult.com/taxi/taxi2.htm>. Accessed April 12, 2005.

¹⁴ Ibid.

¹⁵ Ibid.

According to the New York City Taxicab Fact book 2004, “In the 1970s and early 1980s, individual owner-driving was a more attractive method of taxi operation, dominating the industry and reflected in higher medallion prices for individual licenses. Since the late 1980s, however, an increasing number of taxicabs have been leased out of large fleets, and the fleet or “corporate” price overtook the individual price”.¹⁶

Under the leasing system, drivers representing 1800 unionized cabs restrict lease fee increase at one-half of additional revenue from a fare increase. This implies that the unionized fleet drivers are able to share the earnings with the fleet owners. This is in contrast to drivers who obtain leases from non fleet owners. The competitive environment that exists between non fleet owners and fleet owners ensures that the lease fees do not increase.¹⁷

The “non-medallion” industry: In New York City’s taxicab industry, For Hire Vehicles (FHV) which provide legalized prearranged trip, also play a vital role. It was felt that the entry of the FHV’s would have a substantial impact on the taxi-service environment as it would ensure that taxicab drivers provide a high level of service to ensure that they are able to maximize on their market share. However, research shows that even though such a market structure exists, the impact on the taxi owners and drivers has been very little. This suggests that competition through open entry is not an optimal solution to solving the problems that exists in NYC. It is felt that the leasing system in the

¹⁶ Schaller Consulting Homepage. *The New York City Fact book*, <http://www.schallerconsult.com/taxi/taxifb.pdf>, page 40. Accessed April 13, 2005.

¹⁷ Schaller Consulting Homepage. Schaller, B., Gilbert, G., *Villain or bogeyman? New York’s Taxi Medallion System*, <http://www.schallerconsult.com/taxi/taxi2.htm>. Accessed April 12, 2005

taxi industry promulgates the problems that are faced by the taxicab drivers. The study undertaken by Schaller Consultants,¹⁸ finds that leasing of taxicabs has created financial benefits to owners that has come at the expense of the driver's earnings. This is because drivers work long hours but experience decreasing financial risks with the leasing system as compared to the old commission system.

New York City's taxicab industry faces several structural problems that originate from the regulatory mechanisms that have been put in place. It is essential that policy makers revisit these ordinances and evaluate appropriate solutions to the problems. The medallion system was introduced to provide efficient taxicab service with a view to minimize problems faced by consumers. However, the system has done little to improve the situation (and it is very archaic too). The growth of the taxi demand in New York City far outstrips its supply leading to highly inflated medallion prices. Policy makers must revisit the demand requirements and initiate a more open-market oriented regulatory approach to allow for improvement on the taxicab service availability and service in New York City. Thus, it can be argued, in this case, that introducing a private certifying agency could provide respite by managing the taxicab industry's licensing environment. The agency may set up benchmarks to ensure service and capacity requirements are met. A newer definitive role of the government regulatory body could support this to ensure minimal special interest group lobbying. Alongside, reforms in the leasing system must also be introduced to inculcate a competitive environment, which barely exists in the industry.

¹⁸ Ibid.

SAN FRANCISCO, CALIFORNIA

The Taxi Commission of San Francisco is the central regulatory authority that decides the number of medallions to be issued.¹⁹ Representation on the Commission consists of an individual who does not hold a taxicab medallion, and members from the senior and disabled community, taxicab company (either a medallion holder or a company representative), hospitality industry, labor community, neighborhoods, and general public not affiliated with any of the other enumerated categories.²⁰

Besides the taxicab commission, licensed taxicab permit holders are also required to meet the provisions of the Charter, Police Code, Planning Code and Traffic Code of the City and County of San Francisco. When permit holders are not driving, the permit holder leases his or her medallion to non-medallion drivers through color scheme holders. The permit holder is paid a lease fee by the color scheme, and in turn, the color scheme charges the taxicab driver a gate fee for the use of the vehicle for the whole day. All meter fare income goes directly to the driver.²¹

According to the 2002 annual report of the taxi commission, there were 1,381 medallions holders in San Francisco – 1,306 regular permits and 75 ramped taxicab permits (i.e. wheelchair accessible). A public convenience and necessity hearing

¹⁹ San Francisco Taxi Commission. http://www.sfgov.org/site/taxicommission_index.asp. Accessed April 18, 2005.

²⁰ San Francisco Taxi Commission, *Annual Report 2002*, http://www.sfgov.org/site/taxicommission_page.asp?id=17692. Accessed April 18, 2005.

²¹ Ibid.

determines the number of permits. The taxicab commission must determine whether or not the public is “adequately or properly served” when deciding to issue a permit.²²

San Francisco Planning & Urban Research Association (SPUR)

Study:²³

A study undertaken by the San Francisco Planning and Urban Association brought forward several interesting features of the taxi industry in the city. Some of the findings of the SPUR taxicab study include:

1. Contractual Arrangements: The existence of leasing contracts between the fleet owners and taxicab drivers is a significant cause for the problems faced²⁴. In this market, firms derive their revenue by leasing vehicles to drivers through a flat fee per shift. This takes away any incentive for the firms to increase passenger travel in the short run thus significantly reducing any possibility of firms engaging in activities to improve their services. This translates into manipulative driver behavior that is more concerned with making profits from their customers with little regards to the quality of service.

2. Lack of Incentives: With stagnant income flows, this takes away any incentive for firms to provide better and reliable service and can be attributed as a significant cause for the problems being currently encountered.²⁵ This has also created the problem with lack

²² Ibid.

²³ San Francisco Planning & Urban Research Association Homepage. <http://www.spur.org/>. Accessed April 11, 2005.

²⁴ *Making Taxi Service Work in San Francisco*, San Francisco Planning and urban Research Association, http://www.spur.org/documents/011001_report_01.shtm. Accessed April 19, 2005.

²⁵ Ibid.

of substantial evidence to investigate the appropriateness of the industry structure in San Francisco.

3. Poor Service levels: According to the San Francisco Police Department's survey for 2000, the chance of actually being serviced by a taxicab after making a formal request by telephone was only 40%.²⁶

Some of the recommendations made in SPUR's study include:

1. Meter based fee: This recommendation highlights the need for firms to shift from flat fee leasing to fare based leasing. In this scenario, as firms would be required to adhere to higher levels of service provisions, an incentive structure would be created that would lead to improvements in the service levels.

2. Performance based growth: Due to the poor service level of taxicabs in San Francisco, SPUR recommends setting timelines and benchmarks that would work to serve as rules for firms to follow and discipline their behavior. This would involve setting time-limits that taxi firms would require to adhere to, such as; a taxi must arrive within 5 minutes 70% of the time, within 15 minutes 80% of the time and so on. Any failure by firms to adhere to such standards could then be met with strict action from the regulatory authorities, such as the removal of the medallion or a cap on issuance of any further medallions.

Thus it can be seen that the taxicab market in San Francisco has unique contractual arrangements which have a significant impact on the service levels. The taxi

²⁶ Ibid.

permit leasing agreements are a case in point. Also, the medallion system changes the demand-supply outcomes (in many ways similar to New York City) and thus raises concern over the optimal regulatory environment that may be suitable for San Francisco. To incorporate such concerns, the city administrators should proceed with introducing ordinances that shift the taxi company orientation to a full service taxi company model. This policy initiative would provide a more reliable and consumer-friendly taxi service environment meeting the community's requirements.

PORTLAND, OREGON

The Taxicab Industry is overseen by the City Council under a Taxicab Supervisor who serves as the intermediary between the taxicab industry and the city council. Licensing with respect to entry and exit requirements, investigations of feasibility in revising cab fares, processing public complaints are also under the purview of the supervisor. Any major changes in the regulatory structure in the taxicab industry must be approved by the City Council in the form of an ordinance. The Taxicab Board of Review along with the Taxicab supervisor jointly decides on regulatory changes that may need to be introduced. As part of the review, the members consist of three members of the general public with no affiliation to any taxicab company, manager of Bureau of Licenses, Traffic Engineer and two other persons representing government agencies.

Taxicabs in Portland provide approximately 2 million rides per day²⁷. Four companies with a combined fleet size of 317 vehicles provide the service. The companies

²⁷ Hamilton, J., City of Portland Taxicab Supervisor. "*Taxicabs and Livability*", Portland State University, 1996.

are required to have a minimum of 15 taxicabs for purpose of operations. The Certificate of Public Convenience and Necessity is a standard requirement which is required to be fulfilled before any entry to the market can be permitted by the City council.

The Taxicab Supervisor's Biennial Demand Study²⁸ is unique to the Portland Taxicab Industry. Upon completion of the Biennial demand study, the Supervisor publishes his recommendations which are based on the following criteria:

1. The current status of the public transportation system in the city is based on the ratio of the population in city of Portland to the number of taxicabs in operation, present utilization rates of taxicabs, current and future availability of public transportation system for the citizens, among others.
2. Following this, a review by the Taxicab Board of Review is undertaken, which then files its recommendations to the City council. The final decisions are then taken by the city council which decides on issues related to applicants for permits, financial resources available to meet minimum standards for establishment of taxicabs, and overall taxicab requirements of the city.

A unique feature of the Portland taxicab industry is the prohibition of any transfer of licenses to independent driver's .i.e. all operators must be under the management of one of the existing dispatch companies. In this market, the problems are significantly different from the market structure in New York and San Francisco. In particular, one of the main problems pointed out in a study is the high waiting times which imply a shortage of taxicab availability in Portland. In fact, studies have found that services have

²⁸ Hamilton, John. City of Portland Taxicab Supervisor. *Biennial Taxicab Demand Study*. December 31, 1997(d)

been also turned down by the taxicabs. Thus, a classical case exists wherein it can be argued for opening of the market to meet market demand levels.

In a market paralyzed by supply constraints, opening up the market to allow more firms to enter the taxi market would significantly ease the stress on current taxi availability. Such changes may be initiated by the regulatory bodies, (the Taxicab Board) in this case. Also, the regulatory bodies must set benchmarks that would base service and response times as primary yardsticks. This may be outsourced to private agencies, independently set up, with specializations in monitoring the firm behavior and market reforms requirements for the future.

DALLAS FORT/WORTH, TEXAS

The City Council is the central authority overseeing the taxicab industry in Dallas Fort/Worth. As in the above cases, public convenience and necessity requirements play a key role in determining taxicab entry and exits into the market. Thus, applicant for the permit must prove that there is unmet taxicab service demand that require the proposed taxicab service and that the applicant meets all requirements to provide such services.²⁹

The Director's responsibilities include conducting annual studies and surveys towards estimating need for public convenience and necessity requirements, and prescribe from time to time the number of taxicabs needed to adequately serve the city. In determining the total number of taxicabs required, the director uses the following formula:

²⁹ *Dallas Fort/Worth Taxicab Ordinances*, AM Legal Publishing.
http://www.amlegal.com/online_library.htm. Accessed April 13, 2005.

Maximum number of Taxicabs = 27 Taxicabs * Every 1,000,000 airport passengers per
Calendar year (in both the airports in
Dallas)

If the Director finds that the number of taxicabs exceeds the actual number required to be in operation, the director may establish rules to reduce the authorized taxicabs. Such problems are evident at the Dallas Forth-Worth airport where the majority of taxi drivers can be found lined up to serve the airline passengers. Due to the independent owner – operator status of the majority of taxicab drivers in Dallas, very few of the drivers actually serve the community. The D/FW Airport faces 2000 taxi trip dispatches everyday. Such a system has led to the good drivers being driven out of the airport market structure as they focus on servicing their personal clients more.

In such a scenario, it is essential that the policy changes focus on shifting the taxicabs from the airport waiting areas to city servicing. This would involve shifting the suppliers (drivers) to the city area. This would directly increase availability of taxicabs in the area and bring down fare levels too. This may be achieved by creating an incentive system that will shift the taxicab service providers to serving the community. Here again, introducing reforms that encourage a full service taxi company orientation would ensure that city-wide taxi service is made available (and is not restricted to hotel and airport service).

To summarize the city specific studies, the following table highlights the different features of the taxicab markets of the different cities. The features include the additional customer services along with the extent of regulatory coverage in each city.

City	Population	Permit Required	Taxicab Zones Enforced	Authority	Radio Dispatch Service	Liability Insurance
New York City, NY	8,008,278	√	No	Taxicab and Limousine Commission	√	√
Portland, OR	529,121	√	√	City Council	√	√
San Francisco, CA	776,773	√	No	Taxi Commission	√	√
Dallas Fort Worth, TX	1,188,580	√	No	City Council	Info. not available	√

Table 2: Multi-City Matrix of the different features of the taxicab markets in the different cities

CONCLUSIONS

The paper documents the existence of a very fragmented regulatory environment in the United States taxi industry. The unique medallion system exhibiting monopolistic market tendencies on one end, contrasting with the open markets environment in Portland and Dallas/Fort-Worth on the other end, suggests a fragmentation of the taxicab industry in the country. The study of the intense struggle between regulation and deregulation proponents brought forward several interesting findings in the markets. However, one of the essential outcomes of the studies has shown that the policy reforms need to treat each individual market as unique. The policies must incorporate changes that are able to maximize the benefit all players in the industry. Also, policies should reinforce the fact

that consumers face imperfect information, and thus most often lack the privilege of making comparative assessments between different taxi service providers. This has come to occupy one of the central foundations to base the findings of this study.

It is essential for the city administrators to design local taxi ordinances that recognize the evolving nature of taxicab drivers—from the traditional employee drivers to independent contractor drivers. Ordinances must incorporate policies that promote the interests of the independent contractor drivers (supported by a full service taxicab company orientation) by creating an environment which provides incentives towards maximizing their income levels and productivity.

The regulators need to pay more attention to the taxi firms that ply in their areas. This could be in the form of an annual study in cooperation with local public policy institutes to make informed decisions with regards to licensure and regulations. This would provide a useful benchmark to assess the firm's contribution to the taxicab permits that it is provided with. Alongside, individual taxi certificates may be limited or completely stopped to maximize the benefits of a taxi firm permit for firms that possess them. Also, it would provide tremendous relief to the resources of the city as they would no longer need to "police" the taxi firms.

The ordinances may also be strengthened by ensuring minimum level of service availability in the taxi operations. Services such as radio dispatching, credit card processing could be made mandatory for taxi firms to maintain validity of their permits. Also, ordinances may emphasize on analyzing the financial statements of the taxi firms on an annual basis to assess financial performance trends of the firms. The findings of such studies can be used for future policy reforms.

The city-specific findings reflect the fragmented market structure of the taxicab industry. Thus, unique location specific regulatory reforms need to be initiated to meet the requirements of the consumers. These regulatory initiatives are necessary to establish a more consumer friendly taxicab service environment.

References

¹ In the paper, “Taxicab Industry” would cover all the different entities that form part of the industry – customers, taxi drivers, regulators

² Gilbert G., Samuels, R.E., *The Taxicab*, The University of North Carolina Press, Chapel Hill & London, 1982, page 25

³ The *taxi drivers* can be divided into two categories, with different legal status in the United States. A driver may be an independent contractor, legally covered under the Independent Contractor Statutes, or may be a franchise driver, covered under the Franchise Law.

⁴ Mundy, R.A, Benefits of a Full Service Taxicab Company to the Taxicab Industry and the Consumers, TLPF White Paper. (Submitted for review, August 2005, to Taxicab Regulation Committee, Taxicab, Limousine and Paratransit Association)

⁵ Collective Services Provisions include: Radio dispatch service, credit cards processing, advertising, fleet maintenance.

⁶ The requirement of obtaining the Certificate of Public Convenience and Necessity was found in all city ordinances relating to taxicab operations

⁷ *Taxicab Regulations*,

http://www.portlanonline.com/ausitor/index.cfm?&c=28593#cid_16172

⁸ Parts of this section are also used in a white paper to be published in the near future. The paper is titled “*Benefits of a Full Service Taxicab Company to the Taxicab Industry and the Consumers*”, Center for Transportation Studies, UM-St. Louis.

- ⁹ Gilbert G., Samuels, R.E., *The Taxicab*, The University of North Carolina Press, Chapel Hill & London, 1982, page 150
- ¹⁰ Gallick E.C., D.E. Sisk, A Reconsideration of Taxi Regulation, *Journal of Law, Economics and Organization*, Vol.3, 1987, pp 117-128.
- ¹¹ New York City Taxi and Limousine Commission,
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