# THE SAN FRANCISCO TAXICAB INDUSTRY: AN EQUITY ANALYSIS

A Report For:

The Honorable Gavin Newsom The Honorable Sean Elsbernd

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## **EXECUTIVE SUMMARY**

There are a number of problems currently facing the San Francisco taxicab industry. In our analysis, we determined that a central concern is the inherent inequity in the existing system. This inequity resides primarily in the distribution of economic rents—the payments the city currently allows medallion holders to collect above and beyond their opportunity costs. In assessing how to improve the equity imbalance in the current system, we also considered the impact such a change would have on the quality of life of taxicab drivers and on customer service.

Our initial research ruled out deregulation and geographic franchise systems as feasible alternatives for San Francisco. Therefore, we focused our analysis on the potential equity improvements offered by medallion transferability.

Given the existing cap on medallions and the resulting value of the medallion, transferability could correct the existing equity imbalance through the redistribution of industry revenues and can offer some improvements to driver quality of life. However, we did not project any significant changes in customer service.

We believe a system permitting the sale of medallions (transferability) would provide a more equitable and improved taxicab industry *if* implemented within specific structural parameters. These parameters are central to our conclusion. They protect the rights of individual drivers and provide more public benefit from industry revenue. Our recommended parameters address the use of generated revenue, the transition to a system that allows for private sale of medallions via public auction, and the financing of medallion purchases.

Implementing transferability faces feasibility challenges, as it requires passing a ballot initiative. While transferability could have some public benefits, it does not have a significant impact on customer service in and of itself. Therefore, it might be challenging to garner widespread public interest in and support for this measure.

With this feasibility caveat in mind, we also recommend a "second best" alternative. This alternative could provide improvements within the existing system without requiring a ballot initiative effort. Such an option would provide more equity in revenue distribution by taxing medallion holders an annual "user fee" of \$2,100 (this number is ten percent of estimated leasing income). Our second best alternative addresses uses for increased revenue, the benefits of additional enforcement, and improvements to customer service.

In conclusion, addressing equity concerns could have significant benefits. Whether the city decides to undertake a ballot initiative or to reform from within, it should address existing inequities.

<sup>&</sup>lt;sup>1</sup> Definition of opportunity cost: the amount of payment needed to keep a resource in its current use. The opportunity cost in this case is the basic cost of operating a taxicab.

## PART I. INDUSTRY OVERVIEW AND ANALYSIS

## INTRODUCTION

In 1978, the voters of San Francisco passed Proposition K, which significantly changed the structure of the city's taxicab industry. The measure was prompted by a large-scale disruption in 1976 when one of the city's largest taxicab companies went bankrupt, resulting in the seizure of its medallions and the removal of hundreds of taxicabs from service.

The objective of Proposition K was to create a system that relied more on individual drivers than taxicab companies. Under Proposition K, taxicab permits (commonly called medallions) are considered city property and are issued to drivers for nominal application and permit fees. Individuals who want a medallion may put their name on a waiting list. In 2004, the city instituted a driving requirement for all drivers on the waiting list.<sup>2</sup>

Currently there is also a driving requirement of 800 hours per year for all individuals who received medallions after the passage of Proposition K.<sup>3</sup> Once the medallion holder can no longer fulfill this requirement, the driver must return the medallion to the city.<sup>4</sup> Only individual drivers (as opposed to taxicab companies) may receive medallions, and each individual can receive only one medallion. One of the central reforms introduced by Proposition K was the prohibition of the sale or transfer of taxicab permits between individuals.

The city's Taxicab Commission is the central regulator of the taxicab industry in San Francisco,<sup>5</sup> although the Board of Supervisors has ultimate authority to set fare rates and gate fees. The San Francisco Police Department's Taxicab Detail oversees enforcement. This detail consists of fewer than five personnel to enforce taxicab regulations and handle customer complaints and driver training, issue permits and address other miscellaneous issues.<sup>6</sup> Most stakeholders complain that there is little enforcement of the driving requirement for medallion holders, customer service standards, equipment safety inspections, and illegal street pickups by non-permitted taxis.

Every taxicab on the street must have a unique medallion. The Taxicab Commission limits the supply of taxicabs by capping the number of medallions. The number of medallions is only increased through an annual Public Convenience and Necessity Hearing. This cap allows medallion holders to earn significant economic rents—income that results solely from the artificially limited supply—by leasing out their medallions to non-medallion holders when the medallions holders themselves are not driving. The concentration of these rents on the 1,306 medallion holders<sup>7</sup> is a core inequity in the current system: it allows a small group of private citizens to earn windfall profits

<sup>&</sup>lt;sup>2</sup> Section 1121 of the San Francisco Municipal Police Code. < <a href="http://taxi-reg.home.att.net/article-16.htm">http://taxi-reg.home.att.net/article-16.htm</a>>. 11 May 2006.

<sup>&</sup>lt;sup>3</sup> Section 1076 (o)of the Municipal Policy Code. <a href="http://www.municode.com/Resources/gateway.asp?pid=14140&sid=5">http://www.municode.com/Resources/gateway.asp?pid=14140&sid=5</a>> 18 April 2006.

<sup>&</sup>lt;sup>4</sup> In addition, there are 467 medallions in use that were owned prior to the passage of Proposition K. No driving requirements apply to these medallion owners, and the medallions must be returned to the city upon the owner's death.

<sup>&</sup>lt;sup>5</sup> The Taxicab Commission was created by Proposition D in 1998.

<sup>&</sup>lt;sup>6</sup> Machen, Heidi. Executive Director, Taxi Commission. E-mail correspondence. 25 April 2006.

<sup>&</sup>lt;sup>7</sup> Note: our analysis did not evaluate economic rents for ramp medallion holders, as they are subject to different requirements.

from a public asset and it results in a wide disparity in the quality of life of medallion holder versus non-medallion holder drivers.

## Purpose and Structure of the Report

The goal of this report is to determine whether an alternative system could provide more equitable outcomes for stakeholders in the taxicab industry and the public. In Part I, we evaluate the problems and inequities in the existing structure, analyze possible alternatives, and offer recommendations for improvement. In Part II, we provide parameters for implementing a new system. In conclusion, we discuss the political aspects and tradeoffs of implementing our proposal and present a second-best option for consideration.

#### Criteria

In addition to assessing alternative systems on equity grounds, we also projected outcomes for driver quality of life and customer service. Figure 1 lists the specific dimensions of customer service and driver quality of life that we examined.

## Methodology

In preparing this report, we interviewed key stakeholders in the industry; studied the taxicab systems of other cities; reviewed academic, government, and consultant reports addressing components of the San Francisco taxicab system; and projected the likely outcomes of various alternatives in regards to our criteria.

# Figure 1: Dimensions of Customer Service and Driver Quality of Life

#### <u>Customer Service:</u>

Reliability and response time Availability Driver quality Safety

Fares

## **Driver Quality of Life:**

Driver income
Access to health insurance
Retirement security
Exit options

## Challenges

One of the challenges we faced was the lack of quantifiable data on customer service and driver quality of life, as well as enforcement, safety (accident rates) and waiting list demographics. Without accurate data in these areas, it is difficult to provide empirical evidence to confirm or refute arguments made by proponents and opponents of reform. Although it is difficult to track certain metrics like driver wait time and taxicab availability, it might be worth the city's effort to pursue regular data collection efforts. Other metrics (such as waiting list demographics) are available via hard copy applications, but should be compiled electronically. Gathering this information and making it easily accessible would support future policy analysis efforts and provide helpful guidance in assessing progress within the industry.

In addition, although we conducted research on cities with different taxicab regulatory systems, we realize that it is not always appropriate to use the experience of these cities in projecting outcomes for San Francisco because of each city's unique geographical, economic, and demographic characteristics. Other metropolitan areas did, however, offer some insights and interesting case studies, and were helpful in crafting our recommendations for implementation.

## **KEY STAKEHOLDERS**

Critical stakeholders in the taxicab industry include the city and county of San Francisco, taxicab drivers, taxicab companies, and consumers.

## The City and County of San Francisco

The city's responsibility is to ensure that taxicab regulations result in adequate customer service, support industry regulation, and maintain the transportation infrastructure of the city.

#### **Medallion Holder Drivers**

There are currently 1,381 drivers with medallions in San Francisco.<sup>8</sup> Most of these are also licensed taxicab drivers. According to a 2004 list of medallion holders compiled by the Taxi Commission,<sup>9</sup> 467 of these drivers acquired their medallions prior to the passage of Proposition K and 912 since then.<sup>10</sup> Medallion holders from the pre-Proposition K era do not have to follow Proposition K regulations, except that they cannot sell their medallion.

To receive a medallion, drivers may apply to put their name on a waiting list for a \$354 application fee. They then pay a fee of \$577 when they receive their medallion and an annual renewal fee of \$498. When not driving, most medallion holders lease their medallions to taxicab companies, who in turn lease medallions to non-medallion holders. The Permitted Drivers Association (also known as the Medallion Holders Union) represents the interests of some members of this stakeholder group.

Note: This analysis does not address ramp medallion holders, which are 75 of the 1,381 medallion holders.

#### Non-Medallion Holder Drivers

There are approximately 5,600 "A-card" licensed drivers, excluding medallion holders. Most of them keep all of the income received from fares after paying a flat gate fee to rent the taxicab and medallion and the cost of gas. In this system, drivers are considered independent contractors, not employees, which has important implications for their wages, benefits, and working conditions. The United Taxicab Workers (UTW) represents the interests of some members of this stakeholder group.

## **Taxicab Companies**

Taxicab companies in San Francisco must register with the city to obtain a color scheme required for operation. These unique markings differentiate taxicabs associated with that company from competitors. Companies generate revenue primarily by leasing medallions. As of August 2005, there were 34 taxicab companies operating in San Francisco, all of which vary widely in size and structure.

## Customers

As of 2004, customers take approximately 40,000 to 50,000 taxicab rides per day in San Francisco. <sup>12</sup> This compares to an approximate average of 600,000 unlinked MUNI passenger daily trips and a weekday count of 40,000 commuter automobile trips within the city. <sup>13</sup> According to a 2004 rate comparison, customers in San Francisco face the second highest flag drop rate in the United States. <sup>14</sup>

<sup>&</sup>lt;sup>8</sup> 75 of these 1,381 are ramp medallions (e.g., wheelchair accessible).

<sup>&</sup>lt;sup>9</sup> This list was provided by Carl Macmurdo, President of the Permitted Drivers Association

<sup>&</sup>lt;sup>10</sup> The list provided by Carl Macmurdo in 2004 accounts for only 1379 medallions.

<sup>11</sup> Machen, Heidi. Memo to Mayor Gavin Newsom re: Proposed Taxi Commission FY 2006-2007 Budget. 8 February 2006.

<sup>12</sup> City and County of San Francisco. Office of the Controller. Taxicab Industry Report: Rates of Fare and Gate Fees. December 2005.

<sup>&</sup>lt;sup>13</sup> City and County of San Francisco. Office of the Controller. <u>Taxicab Industry Report: Rates of Fare and Gate Fees</u>. December 2005.

<sup>&</sup>lt;sup>14</sup> Note: "flag drop rate" is the fare charge for the first 1/5 mile.

## PROBLEMS WITH THE CURRENT INDUSTRY

We examined the central challenges facing the taxicab industry. While these problems are wideranging, many of them are related to the distribution of revenue within the system, with the exception of customer service.

## **Inequitable Distribution of Medallion Assets**

In San Francisco, much of the debate around reforming the taxicab industry concerns inequities in the current system. Economics literature commonly defines equity as "fairness in the distribution of goods and services among the people in an economy." Equity concerns involve how revenues are distributed, or not distributed, among stakeholders.

In economic terms, the leasing income medallion holders receive is an economic rent. An economic rent is a payment above the recipient's opportunity cost (the opportunity cost in this case is the basic cost of operating a taxicab). In the San Francisco taxicab industry, this rent results from the artificially limited supply of taxicabs. The cap on supply infuses the medallion with value—a value whose benefits are received solely by medallion holders. If the city did not cap the number of medallions, any qualified driver who wanted to operate a taxicab would simply get a permit from the city instead of leasing. If this were the case, medallion holders would not receive leasing income.

As noted above, taxicab drivers pay a fee to add their names to the medallion waiting list. They then pay a nominal fee to receive a medallion in addition to annual renewal fee for their medallion permit. These fees are expected to account for nearly \$700,000 in revenue for the Taxicab Commission in FY 06-07<sup>16</sup>—an amount significantly less than the actual revenue being generated by the medallions. In essence, the city is giving each medallion holder a subsidy of more than \$20,000 per year. To put this into perspective, this amount is nearly 100 times the average Working Family Tax Credit of \$220 awarded to San Francisco families with children in 2004. <sup>17</sup>

## Poor Driver Quality of Life<sup>18</sup>

Nearly all observers of the industry agree that taxicab drivers, especially non-medallion holders, have a low standard of living. While income estimates vary widely, it is reasonable to assume that the average full time non-medallion holder earns approximately \$24,000 per year. With an additional \$22,000 in leasing income, a medallion holder earns \$46,000. In addition, because all drivers are independent contractors, they do not have traditional employee benefits and have no legal right to bargain for benefits through a union. According to one survey, 46.1 percent of drivers do not have health insurance. Considering their low income, it can be assumed that few are able to save for retirement aside from Social Security.

<sup>&</sup>lt;sup>15</sup> Friedman, Lee, The Microeconomics of Public Policy Analysis. Princeton: Princeton University Press, 2002; 58.

<sup>&</sup>lt;sup>16</sup> Machen, Heidi. Memo to Mayor Gavin Newsom re: Proposed Taxi Commission FY 2006-2007 Budget. 8 February 2006.

<sup>&</sup>lt;sup>17</sup> City and County of San Francisco. Office of the Treasurer and Tax Collector. <u>Mayor Gavin Newsom and Treasurer Cisneros Release \$2 million to Working Families Through the New Working Families Credit Program</u>. 30 September 2005. Available at <a href="http://www.sfgov.org/site/treasurer\_page.asp?id=34906">http://www.sfgov.org/site/treasurer\_page.asp?id=34906</a>.

<sup>&</sup>lt;sup>18</sup> See Appendix A for further background on driver quality of life issues.

<sup>&</sup>lt;sup>19</sup> See Appendix B for the calculations of one estimate of average driver income.

<sup>&</sup>lt;sup>20</sup> City and County of San Francisco. Controller's Office, Taxi Commission, and Treasurer/Tax Collector's Office. <u>Taxicab Driver Survey</u>. April 2004.

The current system provides a disincentive for drivers to exit the system even when they are unable or unwilling to meet the driving requirement; doing so would mean forfeiting a large revenue stream. As Figure 2 indicates, this situation applies to an increasing amount of drivers in the industry. A driver staying in the system longer further exacerbates entry into the system—already restricted by the city's artificial cap on supply—as the turnover of medallions is slow.

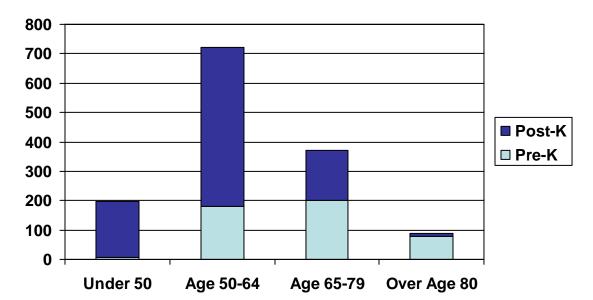


Figure 2: Age Distribution of Pre- and Post-K Medallion Holders

Source: "Medallion Holders by Date of Birth." San Francisco Taxi Commission. 20 May 2004.

## Inadequate Customer Service<sup>21</sup>

We examined five aspects of customer service conditions under the current system: availability, reliability and response time, quality of driver, safety, and taxicab fares.

Taxicab customers in San Francisco pay high fares and have trouble getting cabs in outlying areas. The quality of drivers is adequate, but a dramatic increase of older and possibly unsafe drivers may decrease safety in coming years. Because of the leasing income that is forgone when a driver returns his or her medallion to the city, medallions holders currently have a financial incentive to keep working as long as possible. Due to the existing driving requirement for medallion holders, this scenario could result in older drivers continuing to drive even when doing so might post a safety risk to passengers, pedestrians and other drivers.

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<sup>&</sup>lt;sup>21</sup> See Appendix A for further background on customer service problems.

## POSSIBLE ALTERNATIVES

In our analysis, we considered reforms that would fundamentally change the structure of the existing taxicab industry. We acknowledge that there are potential changes that could be made within the existing system to address driver quality of life, customer service, and the redistribution of industry revenue. However, we focused on whether overarching structural reform could provide improvements above and beyond incremental changes to the status quo. We considered three alternative strategies for ameliorating problems due to Proposition K: deregulation, geographical franchising, and medallion transferability. While other reform strategies may exist, we examined on the central systems used by major metropolitan areas today.

## Deregulation

In a deregulated system, there is no cap on the number of taxicabs that can operate in the city, thereby allowing free entry into the taxicab industry. While several U.S. cities have implemented deregulation (for example, Washington, D.C. and Phoenix), few have also deregulated fares or customer service requirements. Proponents of deregulation argue that it increases the supply of taxis, lets drivers who work hard and know the city well to prosper, and is fair because it allows anyone to enter the market. Opponents argue that customer service often suffers and that regulated systems are a preferable option.

Empirical evidence suggests that cities trying deregulation have had mixed results. A 1996 analysis examined studies across 21 U.S. cities and found that taxicab deregulation led to:<sup>22</sup>

- Increase in taxicabs.
- Increase in highway congestion and pollution.
- Increase in fares.
- Decline in driver income.
- Deterioration in customer service.

A study by Price Waterhouse concluded that, "The experience of [deregulated cities] generally indicates that the benefits of deregulation were devalued by unanticipated and unattractive side effects." Specifically, the study found that under such systems trip refusals and no-shows increased significantly, fares rose, and quality of customer service declined.<sup>24</sup>

Another recent study of a variety of economic analyses of taxicab deregulation had different results: "Sometimes deregulation works and sometimes it doesn't. The devil is in the details of implementing deregulation and what is measured to define success." This study examined 28 economic works on taxicab deregulation and found that approximately two-thirds of the economists in question favored deregulation and one-third were mixed or opposed to it. The authors of the study concluded that, "Taxicab deregulation can work well when done right."

<sup>&</sup>lt;sup>22</sup> Dempsey, Paul Stephen. "Taxicab Industry Regulation, Deregulation & Regulation: The Paradox of Market Failure." *Transportation Law Journal* University of Denver College of Law Volume 24 #1 Summer 1996.

<sup>&</sup>lt;sup>23</sup> "Analysis of Taxicab Deregulation and Re-regulation." Price Waterhouse. Prepared for the Office of Government Services 1993.

<sup>&</sup>lt;sup>24</sup> "Analysis of Taxicab Deregulation and Re-regulation." Price Waterhouse. Prepared for the Office of Government Services 1993.

<sup>&</sup>lt;sup>25</sup> Balaker, Ted and Adrian Moore. "Do Economists Reach a Conclusion on Taxicab Deregulation?" *Econ Journal Watch* Volume 3 Number 1 January 2006: 109-130.

<sup>&</sup>lt;sup>26</sup>Balaker, Ted and Adrian Moore. "Do Economists Reach a Conclusion on Taxicab Deregulation?" *Econ Journal Watch* Volume 3 Number 1 January 2006: 109-130.

<sup>&</sup>lt;sup>27</sup>Balaker, Ted and Adrian Moore. "Do Economists Reach a Conclusion on Taxicab Deregulation?" *Econ Journal Watch* Volume 3 Number 1 January 2006: 109-130.

While the economics of deregulation may make theoretical sense, the translation from theory to practice often encounters significant implementation challenges. In practice, results have been mixed and policymakers seem more hesitant to embrace such a system.

## Appropriateness for San Francisco

Based on this research, we concluded that complete deregulation is not a viable system for San Francisco. As noted above, results from implementing deregulation have been mixed—although the practitioners' perspective is that this system does not provide improvements. To the extent that it is possible to discern a general trend, cities seem to be moving away from deregulated systems, not toward them. At a more practical level, deregulation is a hotly contested political issue. Currently, there is very little support for deregulation in San Francisco. No industry stakeholders currently advocate for it; in fact, most if not all would oppose deregulation should the city consider it. In this context, we focused our analysis on improvements that could be provided to the system under the assumption that the supply of taxi medallions would not be dramatically increased.

## **Geographic Franchises**

Under a franchise system, a city regulates the number of taxicab companies and the geographic areas in which they can operate. Los Angeles currently follows this system. Every few years, companies bid or re-bid for the right to operate in certain areas of the city. Franchises are awarded based on the companies' record in meeting customer service and driver quality standards. Although underperforming companies do not often lose their franchises, the high cost of losing a franchise creates an incentive to maintain a high standard of service—especially if the city has a good system for tracking and measuring performance (see Appendix H for an example). As Thomas Drischler, L.A. Taxicab Administrator, notes, "It is hard to imagine how regulators would have the clout to intervene as strongly in the public's behalf under an alternate system." 28

## Appropriateness for San Francisco

Based on our initial analysis, we determined that a franchise system would not be appropriate for the San Francisco market. Franchise systems appear to work best in cities where the taxicab business is spread out over a large geographic area and is primarily based on phone reservations. Phone reservations allow the city to easily measure response times and pressure taxicab companies to perform well or risk losing their franchise. In San Francisco, taxicab service is split between phone reservations and flag-downs. Most importantly, implementing franchising would change San Francisco's driver-focused industry into one heavily emphasizing the ownership and management of taxicab companies. This is a radically different model from the San Francisco system's support of the individual driver, and therefore unlikely to appeal to San Francisco voters.

<sup>&</sup>lt;sup>28</sup>Drischler, Thomas. Los Angeles Taxicab Administrator. E-mail interview. 4 April 2006.

## **Medallion Transferability**

Under a medallion system with transferability, the medallion is a liquid asset sold at prevailing market value. Medallion-holders are allowed to transfer their medallions to other individuals through

private sale or auction. While the ability to transfer a medallion is the central principle of this system, the system's structure may be organized in many different ways. There are numerous components to consider: sale and financing structures, differing requirements for qualifying owners, administrative and transfer fees, and the subsequent use of generated revenue.

Boston, Chicago, and New York City<sup>29</sup>—all cities with medallion transferability structures—conduct auctions and restrict the sale to qualified drivers. Transfer taxes of five to ten percent are imposed on each medallion sale, thereby generating revenue for the city. The ownership of the medallions is sometimes limited to individuals, although many cities also issue corporate medallions.

Because of the drawbacks of deregulation and franchising referenced above, and because

Figure 3: Taxicab Systems in the Largest U.S. Metropolitan Areas

Population	City	Current taxicab	
Rank		System	
1	New York City	Transferability	
2	Los Angeles	Franchise	
3	Chicago	Transferability	
4	Washington, D.C.	Deregulated	
5	San Francisco	Public Permitting	
6	Philadelphia	Transferability	
7	Boston	Transferability	
8	Detroit	Transferability	
9	Dallas	Not Available	
10	Houston	Not Available	
11	Atlanta	Transferability	
12	Miami	Transferability	
13	Seattle	Public Permitting	
14	Phoenix	Deregulated	
15	Minneapolis	Not Available	

Source: Online Research (see Appendix E)

medallion transferability has been at the center of the debate around taxicab reform for over 20 years, our analysis evaluates the projected implementations of transferability and compares these outcomes with the current system.

<sup>&</sup>lt;sup>29</sup> See Appendix E: Transferability in Other U.S. Cities.

## PROJECTED OUTCOMES UNDER TRANSFERABILITY

In projecting outcomes for transferability, we based our analysis on a system founded on initial public auction sales and the ability for medallion holders to transfer, or sell, their medallions. Our implementation recommendations (Part II of the report) further address issues related to the transition from a public permitting system to transferability.

## Equity in the Distribution of Industry Assets

The system instituted by Proposition K has resulted in a fundamental inequity: large economic benefits are accruing to a small population who is not providing any extra service or effort that merits the receipt of these windfalls.

The city currently collects various fees related to taxicab industry regulation, including application and renewal fees for: driver licenses, medallions, the medallion waiting list, dispatch service, and color scheme. Total annual fee revenue is \$1.3 million.

Under transferability, the city would collect the initial value of the economic rents associated with taxicab medallions, and could use this revenue according to the public's preferences. With estimates of medallion values ranging from \$180,000 to \$250,000, the city could collect anywhere from \$235 million to \$325 million or more (though not necessarily at one time, as discussed below) and apply it to public purposes that affect far more than 1,306 individuals. The city also could reinvest this money into the taxicab industry and distribute it more equally amongst the stakeholders by establishing benefit programs for all taxicab drivers or incentives for customer service improvements. Finally, by auctioning the medallions, the city ensures that the medallions go to the drivers who are the most willing to pay for the right to generate income. The result is an unambiguously more equitable distribution of industry resources than the current system.

#### **Driver Quality of Life**

Transferability would likely have a positive effect on medallion holders, especially for those drivers who would be able to obtain a medallion more quickly than being on the waiting list for 10 to 15 years. It would also improve non-medallion holders' quality of life if the city used medallion sales revenue to establish benefit programs. The following table summarizes the projected outcomes for the quality of life of *future* medallion holders and non-medallion holders.

Criteria	Medallion holders	Non-medallion holders
Driver Income	Increase on average*	No effect
Retirement Security	Increase on average*	No effect or increase**
Access to Health Insurance	Increase on average*	No effect or increase**
Exit Options	Increase	N/A

<sup>\*</sup>Assuming medallion values appreciate as they have in other cities.

#### Medallion Holder Income

Even though drivers would have to pay a significant amount to acquire a medallion, their income should increase along with medallion values over time, according to trends in other cities. In New York, for example, the average price of individual medallions increased by an average compounded

<sup>\*\*</sup>If city revenue from medallion sales and transfer fees is used to establish benefit programs.

rate of approximately seven percent each year from 1995 to 2005. A medallion purchased ten years ago nearly doubled in value from close to \$170,000 to almost \$340,000 (See Figure 4).<sup>30</sup>

Many factors contribute to rising medallion prices, including changes in the supply of taxicabs relative to demand, fare, and gate fee cap. Transferability turns the taxicab medallion into an investment; individuals are willing to pay a price to acquire a medallion because they will be able to sell it later. These potential buyers expect to earn revenue—initially from leasing and later from selling their medallions when they exit the industry. As with any investment, the medallion holder takes the risk that the medallion's value will decrease. The following graph shows that taxicab medallion values have steadily increased in New York City, although this is not a guaranteed trend. Medallion holders will likely exert political pressure to ensure that medallion values rise, through lobbying for maintaining the current medallion cap and increased gate fees, among other things.

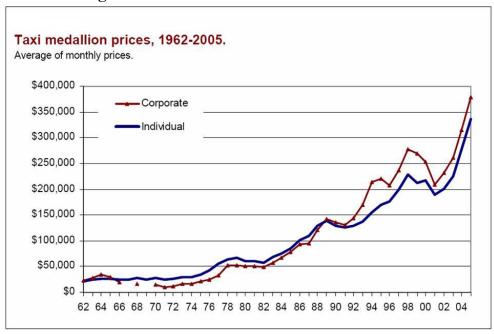


Figure 4: Taxicab Medallion Values in New York

Source: Schaller, Bruce. "NYC Taxicab Fact Book." June 2006: 39.

The UTW strongly opposes transferability for two primary reasons. First, they argue that high medallion prices will put medallions "out of reach of most taxicab drivers." Secondly, few drivers would remain in the industry once they realized the financial challenges inherent to acquiring a medallion, "leaving few experienced drivers to serve the public."<sup>31</sup>

<sup>30</sup> Schaller, Bruce. "NYC Taxicab Fact Book." June 2006: 39.

<sup>&</sup>lt;sup>31</sup> "Objections to Transferability of Taxicab Permits." United Taxicab Workers. 22 March 2006.

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Certainly, most taxicab drivers do not have the finances to purchase a medallion outright. However, in cities with transferability, drivers are able to secure loans at reasonable interest rates from financial institutions and refinance these loans as the value of the medallion increases. In addition, transferability does not appear to diminish the stock of experienced taxicab drivers. In New York City, medallion-owners are more likely to be full-time and more experienced drivers than non-medallion holders; they also violate taxicab regulations less frequently.<sup>32</sup>

Whether an individual medallion holder would fare better under the current system or under transferability depends on a host of factors, including prevailing interest rates, medallion appreciation, and the length of time a driver remains in the industry. For example, a driver who has reached the top of the waiting list and is granted a medallion for free can keep all of his leasing income but cannot sell his medallion. He has also missed out on the leasing income he could have earned if he did not have to wait 15 to 20 years to get a medallion. A driver who buys his medallion in the present day must use nearly all of his leasing income to pay off his loan for approximately 15 years, after which he can earn money from leasing and selling his medallion when he retires.

#### Non-Medallion Holder Income

If San Francisco implemented transferability as other cities have, then non-medallion holders would likely see no change in their income. Under the current leasing system, driver income is determined by the gate fee, cost of gas, fare price, and number and length of trips per shift. As noted above, moving to a transferability system would not change the political process that sets gate fees and fares, nor would it alter the incentives stakeholders have to lobby for these changes. There is also no reason that transferability would have an effect on the number and length of trips per shift, which depend on the supply and demand of taxicabs.

For comparison purposes, the estimated average net income of drivers in New York is \$158 for a 12-hour shift over 130 miles.<sup>33</sup> This is slightly higher than the San Francisco average of \$117 for a ten-hour 120-mile shift.

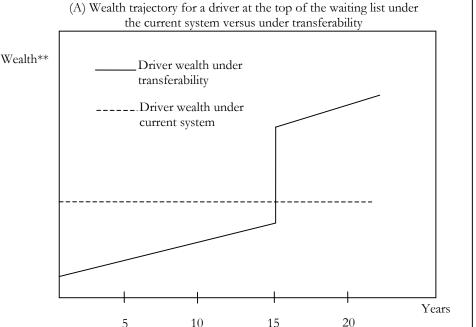
<sup>32</sup> Schaller, Bruce. "NYC Taxicab Fact Book." June 2006.

<sup>33</sup> Schaller, Bruce. "NYC Taxicab Fact Book." June 2006: 36.

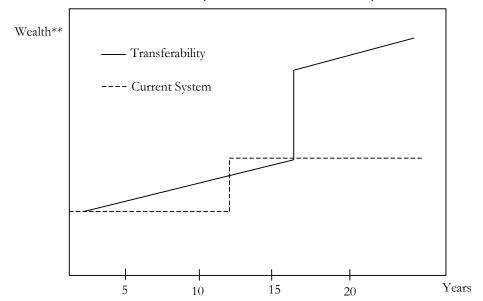
Figure 5: Simulation: Medallion Holder Wealth Under Current System and Transferability\*

- (A) Drivers who receive a medallion today under the current system (i.e. a driver at the top of the waiting list) immediately begin to earn leasing income at a constant rate until relinquishing the medallion. Drivers who receive a medallion today under transferability must devote virtually all of their leasing income to loan payments for a 15 year loan, during which time the value of the medallion is appreciating. After the loan is paid off, they keep all of this leasing income, as seen in the income spike at 15 years.
- (B) Drivers who enter the industry today under the current system must wait approximately 12 years to receive a medallion. Drivers who enter the industry today under transferability can bid on and receive a medallion after driving for 2 years

Total wealth is represented by the area under the curve up to the year in question.



(B) Wealth trajectory for a driver who just entered the industry under the current system versus under transferability



<sup>\*</sup> These graphs are intended to illustrate our projections based on general trends in income and medallion values in San Francisco and New York City. They do not reflect actual data. In practice, differences between income trajectories will depend on medallion appreciation rates and changes in leasing income.

<sup>\*\*</sup>Wealth is measured in constant dollars. For the current system, wealth includes driving and leasing income. For transferability, income includes driving and leasing income as well as the value of the medallion if it were sold in that year.

## Retirement Security and Access to Health Insurance

Transferability would likely increase the retirement security of medallion holders who receive a large sum of money from selling their medallions at the end of their driving careers. It would not have an effect on the retirement security or health insurance coverage of non-medallion holders, unless the city used the revenue gained from selling medallions to establish benefit programs. The UTW has argued for a more equitable approach for all though establishing a fund to provide benefits, such as financial assistance to "non-permit holders who have suffered major illnesses or injuries, or who have reached the end of their driving careers," as well as a voluntary retirement plan. Transferability would undoubtedly increase the city's ability to establish such programs, using revenue from initial medallion sales and transfer fees. As noted above, the city revenue from the initial sale of medallions could be from \$235 million to \$325 million. Annual revenue from an estimated turnover of 35 medallions per year (generated from a ten percent transaction fee on an estimated medallion purchase price from \$180,000 to \$250,000) would be \$630,000 to \$875,000.

The Taxicab Commission already has studied the feasibility of providing health insurance to taxicab drivers under the current system. The San Francisco Health Plan and the Department of Public Health recently issued a report presenting several options for financing such a program, including taxing medallion holders. The UTW argues that a tax under the current system would provide more stable revenue to fund this program since the number of permits is relatively stable, while the number of medallions transferred each year could fluctuate. However, simply imposing a user tax on current medallion holders does not provide as much funding as would initial sales revenue and ongoing transfer fees combined.

#### Exit Options

A challenge with the existing system is that provides a disincentive for older drivers to leave the industry. With transferability, some medallion holders will still choose to retain their medallions past the normal retirement age in order to continue receiving leasing income, but on the whole transferability offers added incentives for drivers to exit the system when they are no longer able to drive by providing revenue through the sale of their medallion.

#### **Customer Service**

In analyzing these criteria, we found that transferability was unlikely to have much if any effect on customer service. Other taxicab systems with transferability produce roughly similar results in this regard. For example, customer service rankings in New York City are not significantly different from those in San Francisco.

Criteria	Projected Outcomes	
Availability	No effect	
Reliability and Response Time	No effect	
Quality of Driver	No effect	
Safety	Potential increase	
Taxicab Fare	No effect	

<sup>&</sup>lt;sup>34</sup> "Objections to Transferability of Taxicab Permits." United Taxicab Workers 22 March 2006.

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## Availability 1 4 1

The Taxicab Commission will continue to restrict the number of taxicabs on the street whether the system stays the same or switches to transferability. This process is political, driven by industry stakeholders and ultimately decided by city officials. Under transferability, medallion holders would likely maintain pressure to ensure that the cap on medallions is not increased, but this would be an extension of existing pressures. There is no reason to believe that the inputs into these decisions would be any different under transferability. Thus there is no reason to believe transferability would increase or decrease the number of taxicabs on the street. This number, along with geographic and time distribution of taxicabs (which also would be unlikely to change under transferability), is the primary factor in getting a taxicab, so we believe transferability would not have an effect on availability.

#### Reliability and Response Time

There is no reason to believe that transferability would affect taxicab reliability or response time. Changing the way in which drivers obtain medallions would alter their likely to respond to service calls. This is a current problem—especially in outlying areas—that transferability would not address.

## Quality of Driver and Safety

Transferability allows drivers to leave the system when they choose to by allowing them to sell their medallions and benefit from the proceeds. Under the current system, drivers have a disincentive to leave because in doing so they forfeit their monthly medallion leasing income. Some argue that a more flexible exit strategy would encourage more experienced, qualified drivers to leave the industry. However, New York City found that medallion drivers are actually more experienced and receive fewer customer complaints. Perhaps more importantly, transferability allows older and likely unsafe drivers the opportunity to easily leave the industry, potentially increasing safety conditions for those in taxicabs and on the road.

## Taxicab Fares

Transferability itself would not change taxicab fares. As with the number of taxicabs allowed on the street, fare rates are set by a political process. A switch to transferability would not automatically affect this process. Some argue that taxicab drivers' large loans for medallion purchases would put pressure on the system to increase fares, but cities with transferability actually have lower rates than San Francisco currently does.

<sup>35</sup> Schaller, Bruce. "NYC Taxicab Fact Book." June 2006: 23.

## **SUMMARY OF FINDINGS**

Based on our analysis, we project that implementing medallion transferability in San Francisco will:

- Result in a more equitable distribution of industry resources.
- Not substantively affect customer service.
- Improve the quality of life of future medallion holders on average, assuming medallion values appreciate as they have in other cities.
- Potentially improve the quality of life of non-medallion holders, if city revenue from medallion sales is used to establish benefit programs.

## **CONCLUSION**

The current San Francisco taxicab system causes an inequitable distribution of industry resources and contributes to poor driver quality of life. Medallion transferability would improve the current system, if implemented within certain structural parameters.

In the following section of the report we outline our recommendations for the implementation of transferability.

## PART II: IMPLEMENTATION ISSUES AND RECOMMENDATIONS

The effectiveness of medallion transferability in addressing system inequities hinges on implementation. While our recommendations draw on elements of transferability systems in other cities, we have tailored and designed our recommendations to conform to the ideals of a city known for protecting its workers and caring for its citizens.

The following recommendations address four central aspects of implementing transferability:

- 1) Transition from the Current System to Transferability
- 2) Public Auction of Medallions
- 3) Financing of Medallion Purchases
- 4) Use of City Revenue

Each of these topics warrants further research. Our recommendations, which are summarized in Figure 6, outline the general principles of implementing a new system.

## Figure 6: Summary of Implementation Recommendations

#### **Transition Issues:**

- Allow current medallion holders to retain their medallions but not to sell them.
- Eliminate the current waiting list for medallions.

#### **Public Auction of Medallions:**

- Establish and administer city-run auctions for the transfer of all medallions.
- Sell at the market clearing price in a sealed bid auction.
- Collect a ten percent transfer fee on the sale price of medallions.
- Require prospective bidders and medallion holders to be active taxicab drivers.
- Continue to allow only individuals (not corporations) to own medallions, and restrict individuals to owning only one medallion.

#### **Financing of Medallion Purchases:**

• Assist drivers in making down payments on medallion loans by providing loans of up to 15 to 20 percent of the market price of the medallion.

## Use of City Revenue:

- Use 75 percent of the generated revenue to establish benefit programs for taxi cabdrivers and financial assistance for medallion purchases.
- Use 25 percent of the generated revenue to enhance customer service and to improve enforcement.

## **TRANSITION**

Presently, taxicab drivers are divided into three categories: medallion holders, drivers on the medallion waiting list, and drivers who do not have a medallion and are not on the waiting list. How these groups are affected by the transition is a key consideration regarding the implementation of transferability. Our recommendations are intended to address equity imbalances up front and to ensure a smooth transition.

➤ Recommendation: Current medallion holders should not be allowed to transfer their medallions, but may retain their medallions and operate under existing regulations. If they choose to retain their medallions, they should be assessed an annual medallion user fee of \$2,160 (a flat fee based on ten percent of estimated annual leasing revenue).

To minimize disruption to the taxicab industry, medallion owners should be allowed to continue to operate according to the current system. When a medallion holder can no longer fulfill the driving requirement, the driver should return his or her medallion to the city to be auctioned. Allowing current medallion holders to sell their medallions would contradict the primary purpose of implementing transferability: instead of collecting the economic rents through an auction, the city would once again be transferring wealth to medallion holders. If medallions are turned over to the city at a rate of 35 per year, the last medallion will be retrieved in approximately 37 years.

**Recommendation:** Eliminate the current waiting list for medallions.

Under a transferability system, there would be no need for a wait list. Drivers who want a medallion will be able to enter the bidding process. Those who are currently on the waiting list fall into this category. See the table below for a summary of how drivers currently on the waiting list would fare under a transferability system, as well as the effect on other stakeholders.

Figure 7: Effects of Medallion Transferability

Stakeholder	Effect	
City and County of San Francisco	Benefit:	
	Increased revenue for distribution towards public good.	
Prop K Medallion Holders	No Effect:	
	No additional income benefit, unless they return their	
	medallion and repurchase it through the auction.	
	Benefit:	
	Possible benefit via city-funded programs.	
	Loss:	
	Increased fees via imposed user tax.	
Pre-Prop K Medallion Holders	No Effect:	
	No additional income benefit, unless drivers return their	
	medallion and repurchase it through the auction.	
	Benefit:	
	<ul> <li>Possible benefit via city-funded programs.</li> <li>Loss:</li> </ul>	
Drivers on the Wait List	Increased fees via imposed user tax.  Benefit:	
Drivers on the wait East	<ul> <li>Increased opportunity to obtain a medallion by bidding.</li> </ul>	
	<ul> <li>Possible benefit via city-funded programs.</li> </ul>	
	Loss:	
	Unable to obtain a free medallion via the wait list.	
Drivers without Medallions not	Benefit:	
on the Wait List	Possible benefit via city-funded programs.	
	Increased opportunity to obtain a medallion through	
	auction.	
Future Medallion Holders	Benefit:	
	Ability to sell medallions.	
Cab Companies	No effect.	
Customers	No effect.	
San Francisco Residents	Benefit:	
	Possible benefit from increased city revenue.	

# PUBLIC AUCTION OF MEDALLIONS

The procedure used for transferring medallions is another critical component of implementing transferability. Most cities that operate under a transferability system conduct auctions for initial medallion transfers. Some cities, such as New York City, manage subsequent sales of medallions through direct sales or privately-run auctions.

**Recommendation:** All medallions should be sold through a public auction administered by the city.

Cities that allow private medallion sales are beset by brokers who serve as middlemen. As a result, taxicab drivers face different prices for their medallions and new entrants do not have perfect information about the prevailing market price. If the city operates the auction it will be standardized and better regulated.

Medallion auctions should be managed by an appropriate city agency, such as the Taxicab Commission or the Controller's Office. The process would involve several steps:

- Gathering the medallions that are being offered for sale.
- Notifying taxicab drivers of the deadline and format for submitting bids.
- Collecting bids and verifying that bidders are qualified.
- Opening the bids.
- Announcing the winners.
- Collecting the sale revenue.

The city should determine the optimal frequency of auctions depending on the expected turnover of medallions.

**Recommendation:** The auction should be sealed-bid and medallions should be sold at the market clearing price.

Requiring that bids be submitted in sealed envelopes restricts the ability of bidders to collude to keep medallion prices down (New York City distributes special envelopes for this purpose). On the day of the auction, the city would open the envelopes and rank order the bids from highest to lowest. The available medallions would be awarded to the highest bidders, but each recipient should only pay the market-clearing price. For example, if 20 medallions were available, the top 20 bidders would each receive a medallion, and they would all pay the 20<sup>th</sup> highest amount bid. This structure encourages participants to bid no more or less than they actually want to pay. Over time such a system sets an expected price for medallions, making it easier for those trying to enter the market to anticipate the costs required.

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**Recommendation:** Collect a ten percent transfer fee on the sale price of medallions.

In most cities that have transferability, the city collects a percentage of each sale as a medallion transfer fee. We recommend the city reinvest this revenue in the taxicab industry.

**Recommendation**: Require prospective bidders and medallion holders to be active taxicab drivers.

All stakeholders in the industry, including the voters of San Francisco, have indicated a strong preference for requiring medallion holders be working taxicab drivers. The city should therefore require prospective bidders to have valid taxicab licenses and to have driven a taxicab for two out of the last three years. In addition, the city should maintain its current driving requirement for medallion holders. These measures would prevent people who have no stake in the industry from buying medallions to collect leasing income. They would also increase driver quality as medallion holders gain experience and understanding of the industry.

**Recommendation:** Only individuals (not corporations) may own medallions, and no individual may own more than one medallion.

These measures are consistent with the desires of the majority of industry stakeholders and the voters of San Francisco to date.

## FINANCING OF MEDALLION PURCHASES

Few taxicab drivers can afford to buy a taxicab medallion outright; most finance the purchase through a loan. In other cities, the medallion financing market is extremely segmented. For example, Medallion Financial, a corporation that specializes in taxicab medallion loans, has a 20 percent share of the market in New York City, while the other 80 percent is composed of a variety of credit unions and smaller finance firms. Large banks generally avoid the medallion financing market because the loans are relatively small-scale and labor intensive. Tonsidering the experience of these other cities, we anticipate that a similar financing market would develop in San Francisco should the city move to a transferability system.

Based on the model in New York, taxicab drivers in San Francisco could expect to have to provide a down payment of 20 percent of the medallion's value and then take out a 15-year loan to cover the remainder of the cost. Medallion Financial believes that the interest rate in San Francisco would be between 8 and 12 percent. However, historically medallion values have risen so quickly that owners are able to refinance their loans within three to five years. <sup>39</sup>

Most financing institutions view the loans as relatively safe since the medallions themselves serve as collateral—if a driver is unable to make the payments, the bank can simply repossess the medallion and sell it on the open market. For example, even though many New York City drivers are immigrants with little or no credit history, the default rate on the loans has typically been less than one percent.<sup>40</sup>

Recommendation: Assist drivers in making down payments on medallion loans by providing loans of up to 15 or 20 percent of the market price of the medallion.

Assuming a medallion financing industry does emerge in San Francisco, the main obstacle for drivers who want to purchase a medallion is coming up with the required down payment. If the price of a medallion is \$180,000, a 20 percent down payment would be \$36,000.

According to Naomi Little, former Executive Director of the Taxicab Commission, the California Safe Business Industrial Development Corporation might be willing to offer loans with an interest rate as low as 6.75 percent.<sup>41</sup> Other state agencies could be in a position to offer similar terms. In addition, the city itself could use some of the revenue from medallion sales to establish a revolving fund for down payment loans.

<sup>&</sup>lt;sup>36</sup> McCormack, Scott. "Riches in Niches." Forbes 27 July 1998.

<sup>&</sup>lt;sup>37</sup> McCormack, Scott. "Riches in Niches." Forbes 27 July 1998.

<sup>38</sup> Kowalsky, Michael. Executive Vice President, Medallion Financial Group. Telephone interview. 20 April 2006.

<sup>&</sup>lt;sup>39</sup> McCormack, Scott. "Riches in Niches." Forbes 27 July 1998.

<sup>&</sup>lt;sup>40</sup> Kowalsky, Michael. Executive Vice President, Medallion Financial Group. Telephone interview. 20 April 2006.

<sup>&</sup>lt;sup>41</sup> Little, Naomi. Director of Purchasing, Office of Contract Administration. Telephone interview. 13 April 2006.

## **USE OF CITY REVENUES**

By moving to a transferability system, the City and County of San Francisco would receive an estimated \$235 million to \$325 million from the sale of medallions. <sup>42</sup> This revenue does not account for any new medallions the city would sell if it raised the current limit above 1,306. It is important to note that the city would receive this revenue over time as drivers returned their medallions to the city. The extra revenue could be used in many ways to benefit both the taxicab industry and the public at large. We recommend that the funds be reinvested in the industry to improve driver quality of life and customer service.

Recommendation: Use 75 percent of the revenue to establish benefit programs for taxicab drivers and provide financial assistance for medallion purchases.

Using revenue generated by medallion sales to address quality of life disparities between medallion holders and non-medallion holders is a critical component of our implementation strategy. The city would essentially be redistributing the economic rents currently accruing only to medallion holders to all taxicab drivers. These funds can be used to establish a voluntary retirement program similar to a 401(k) with matching contributions from the city or to partially fund a driver health insurance program as described in the recent 2006 Taxicab Driver Health Care Report. We recommend the latter approach, as it would further the city's goal of providing everyone in San Francisco access to affordable health care, as indicated by a citywide vote in 1998. According to the Heath Care Report, healthcare coverage for drivers would require \$9 million to \$16 million in revenue annually. Medallion sales and transfer fees would cover a substantial portion of this amount. Currently, all of the options provided in the Health Care Report require increases in taxicab fares. It would be worth researching if additional city contributions could compensate for fare increases, for the benefit of the customer.

**Recommendation**: Use 25 percent of the revenue to improve enforcement of taxicab regulations and enhance customer service.

Applying a portion of the revenue to improvements in customer service and enforcement will address some of the inadequacies referred to in Part I of this report. For example, funds can be used to increase enforcement of the driving requirement for medallion holders, to enhance incentives for vehicle and equipment upgrades, or to improve the processes for measuring performance of taxicab service and deciding whether to issue more medallions. Using the revenue for these purposes will also make the transferability proposal more appealing to voters.

<sup>42 1,306</sup> medallions \* \$180K/medallion = \$235 million; 1,306 \* \$250K/medallion = \$325 million

<sup>&</sup>lt;sup>43</sup> Measure J: Universal Health Care Declaration of Policy. 16 February 1999.

<sup>&</sup>lt;a href="http://www.smartvoter.org/1998nov/ca/sf/meas/J/>">http://www.smartvoter.org/1998nov/ca/sf/meas/J/>">.

<sup>&</sup>lt;sup>44</sup> City and County of San Francisco, Department of Public Health. <u>Establishing a San Francisco Taxi Driver Health Care. Coverage Program: Administration, Cost, and Funding Options.</u> March 2006.

## PART III. ADDITIONAL CONSIDERATIONS AND CONCLUSION

## TRADE-OFFS

Implementing medallion transferability has several disadvantages. One concern is the creation of financial barriers to entry; not everyone in the system has the ability to purchase a medallion. Although drivers who bid on medallions would be able to take out loans to cover the cost, the down payment requires a substantial initial investment and the loan itself requires a significant commitment; the driver would have to make monthly payments or risk losing the medallion.

Transferability would likely lock in the current system for the foreseeable future. Once the medallions have value and can be sold on the open market, moving to another system would likely require buying the medallions back from the drivers at a high cost to the city. Also, medallion holders with a significant investment in the industry would likely not agree to major reforms that might threaten this investment. Additionally, transferability could create additional challenges to increasing the supply of medallions. The process is already highly political, and will become even more contentious if the medallions have market value, since increasing the number of medallions could decrease this value.

Finally, transferability shifts risk onto medallion holders. The benefit of the investment in a medallion lies in the assumption that the value of the medallion will rise over time, as has been the case in other markets—most notably New York City. Yet, this assumption has its risks: increasing gas prices, trends towards public transportation, and rising interest rates could actually reduce medallion values.

## **POLITICAL CONSIDERATIONS**

Implementing transferability would require passage of a ballot measure to overturn Proposition K. The success of such an initiative depends on the balance between the political and public support it receives and the opposition it faces from stakeholders in the industry and elected officials.

#### **Consumer Perspective**

All ballot measures attempting to overturn Proposition K have failed. One could interpret these outcomes as an indication that San Francisco voters support the existing system or that opponents of competing ballot measures have been influential in their campaigning efforts. On the other hand, "no" votes could simply reflect voter apathy or ignorance about the issue.

It would be important to determine the motivation behind the outcomes on earlier transferability ballot initiatives. As moving to transferability provides no direct benefit for customer service, San Franciscans have no self-interested reasons to support such a reform. If revenues will be directed to supporting city works, the redistribution of industry revenues could garner public support. However, this alone may not be an adequate reason to rally the widespread public support needed. It is worth noting that Proposition K—the last major reform to succeed—passed during a significant policy window (the disruption of service caused by taxicab company bankruptcy). Another policy window could greatly aid in successful movement forward now.

## **Opposition**

A ballot initiative based on the above recommendations is unlikely to have the support of the Medallion Holders' Union or the UTW. Even though current medallion holders are allowed to keep their permits, they will likely be unhappy that they—according to our recommendations—cannot sell them and earn a windfall profit, which has been a feature of some of the previous attempts to implement transferability. These drivers therefore have no compelling reason to support such a reform over the status quo. In addition, the UTW—representing the views of some non-medallion holders—has consistently indicated its opposition to transferability, primarily because under such a system, drivers on the waiting list will be forced to purchase a medallion, instead of receiving one for a nominal fee. The UTW is particularly concerned about individuals near the top of the list who have been waiting for many years, and who have made career and life decisions based on the expectation that they would receive a medallion.

## Advantages

On the other hand, our proposal has political advantages over previous attempts to implement transferability. It is more equitable in that it does not award a windfall profit to current medallion holders and it specifically calls for revenue to be spent on benefits for all taxicab drivers as well as customer service improvements—a compelling message for the majority of voters. It also seeks to help drivers overcome financial obstacles to buying a medallion.

#### **Summary**

It is unlikely that voters would support a reform to change the existing system without a compelling reason to do so—be it a strong message about the direct benefits to consumers or the occurrence of a specific event that would illuminate the need for reform. Strong backing by the Mayor and Board of Supervisors would be essential to building public support as well, and public support would have to be identified among the existing non-medallion holding driver population. The choice of whether or not to pursue this reform is a political decision that rests on the campaign leaderships' relationships with the stakeholder groups and their desire to spend political capital on a campaign that has failed many times in the past. In summary, transferability might be good policy but it presents challenging politics.

## **SECOND-BEST OPTION**

Given the political obstacles in passing a ballot initiative to overturn Proposition K, as well as the technical challenges in implementing medallion transferability, it may be more prudent to pursue a second best option of implementing changes within the existing system to address some of the problems noted in Part I. If the City and Country of San Francisco decides against pursuing transferability, we recommend considering the following:

#### Tax Medallion Holders

To address the concentration of economic rents that accrue to medallion holders, the city could charge a more substantial fee in exchange for the right to earn leasing income. We recommend a minimum annual medallion user fee of \$2,100, equaling approximately ten percent of leasing revenues, assessed to be \$21,600. This fee should increase as estimated leasing income increases to remain at ten percent. The United Taxicab Workers have indicated support of such a reform and believe that it would raise approximately \$2.8 million per year. The revenue could be used to fund programs to increase driver quality of life and customer service as noted above.

## Use Revenue to Establish Benefit Programs for Drivers

To address concerns regarding driver quality of life, the city could use revenues from the medallion user fee to partially fund a health insurance plan for taxi drivers.

## **Increase Enforcement of Driving Requirements**

The city should seek ways to increase enforcement of the driving requirement for medallion holders and drivers on the wait list. For example, the SPUR Report recommended exploring technological devices for monitoring driving activity (e.g. swipe cards) and instituting changes to the process of revoking permits.<sup>46</sup> We recommend increased enforcement to facilitate the turnover of medallions back to the city once drivers are no longer able to competently perform their job.

#### **Improve Customer Service**

The city should implement reforms to induce taxicab companies and drivers to improve customer service. In a study on taxicab service in New York City, two of the country's foremost taxicab experts proposed several measures for improving customer service, including stricter driver licensing and training requirements, new regulatory programs, and tougher enforcement. <sup>47</sup> Likewise, the SPUR Report recommended devices such as installing GPS tracking systems and split meter fares to induce drivers to be more responsive to customers' phone reservation and flag-down requests. <sup>48</sup> In addition, some stakeholders have suggested adding a surcharge for dispatch calls in outlying areas of the city to increase service reliability. <sup>49</sup>

Regulating these types of improvements, however, is not easy. When the New York Taxi and Limousine Commission mandated all taxicabs to install GPS tracking systems in 2004, for example, taxicab drivers and companies blocked the reform after protesting over the high cost and privacy

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<sup>&</sup>lt;sup>45</sup> "Objections to Transferability of Taxicab Permits." United Taxicab Workers. 22 March 2006.

<sup>&</sup>lt;sup>46</sup> "Making Taxi Service Work in San Francisco: Final Report." Nelson/Nygaard Consulting Associates. Prepared for San Francisco Planning and Urban Research Association November 2001: 40.

<sup>&</sup>lt;sup>47</sup> Gorman, Gilbert, and Bruce Schaller. "Fixing New York City Taxicab Service." *Transportation Quarterly* Volume 50 Number 2 Spring

<sup>&</sup>lt;sup>48</sup> "Making Taxi Service Work in San Francisco: Final Report." *Nelson/Nygaard Consulting Associates.* Prepared for San Francisco Planning and Urban Research Association November 2001: 21.

<sup>&</sup>lt;sup>49</sup> Gruberg, Mark, Representative, United Taxicab Workers. Personal interview. 23 March 2006.

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infringement.<sup>50</sup> In addition, as these measures are unlikely to significantly increase the profitability of taxicab companies and drivers, they represent additional costs with little benefits in an industry that is only marginally profitable. We therefore recommend providing financial incentives for implementation.

## Improve the Process for Determining the Appropriate Number of Medallions

The city should further insulate the process for setting the number of medallions from political pressure. One way to achieve this would be to tie the number of medallions to an index based on relevant market characteristics, such as population, economic measures, and the number of tourists visiting the city. In addition, the city should conduct more ongoing taxicab availability studies. These measures would bring the industry to a closer approximation of economic equilibrium, as supply would be nearer to demand.

## FINAL CONCLUSION

Medallion transferability offers a policy improvement over current taxicab regulations: it rectifies system inequities and provides opportunities to improve driver quality of life, without harming customer service.

Transferability implementation, however, faces technical and political challenges. City officials should consider these challenges when determining whether or not creating an equitable system justifies what would likely be a contentious ballot initiative process. Although our recommendations were crafted so as to minimize implementation difficulties, political opposition and voter apathy may be too strong to overcome. Taxicab consumers could benefit from moving to transferability, but at present this may not be sufficiently compelling for the citizens of San Francisco to support such a reform measure.

If the city does not pursue transferability at present, or if reform efforts are unsuccessful, our "second best" recommendation provides options for addressing current problems without a ballot measure. In the absence of a policy window that provides momentum to change the system, reform within the system may be the most viable strategy for implementing reform.

<sup>&</sup>lt;sup>50</sup> "NYC Cabbies Say No To GPS." Techweb. 21 March 2006.

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# **APPENDICES**

#### APPENDIX A: PROBLEMS FACING THE CURRENT INDUSTRY

## Low Driver Quality of Life

#### Income

According to a survey of taxicab drivers conducted in 2004,<sup>51</sup> most drivers work full time or close to full time but earn small salaries. While over 62 percent of respondents reported driving a taxicab for 30 or more hours per week,<sup>52</sup> only 2.3 percent reported earning \$35,000 per year or more in taxirelated income.<sup>53</sup> 72 percent of drivers reported earning less than \$25,000 per year.<sup>54</sup>

Nearly every stakeholder we interviewed acknowledged that the above income figures are likely downward-biased, due to self-reporting. Another estimate of average driver income can be calculated based on figures provided by the Controller's Office regarding average number of fares per shift, trip length, and costs per shift.<sup>55</sup> Using these figures, we calculated an average estimated net income of \$117 per ten-hour shift. Applying this figure, the annual income of a driver working 40 hours per week would be \$24,315.20, while a driver working 60 hours per week would make \$36,472.808.<sup>56</sup> Clearly, this is a rough estimate and actual taxicab driver income will vary dramatically depending on number of hours and shift worked, and the fluctuating price of gas. Using the figure recommended by the UTW, \$100 per shift after gate and gas, the annual income for a driver who worked 40 hours per week for 50 weeks would be \$20,000. Regardless of the estimate used, it is clear that many taxicab drivers earn near poverty level salaries, especially in a metropolitan area with a very high cost of living.

With the typical \$1,800 monthly lease fee<sup>57</sup> medallion holders can make an additional \$21,600 per year, beyond their income from driving.

#### Access to Health Insurance

More than half of the respondents to the survey referenced above reported having no health insurance whatsoever. The vast majority of these individuals stated that they do not have insurance because they cannot afford it. Moreover, of the 39 percent who reported having health insurance, 20 percent have either Medi-Cal or Medicare. Although city policymakers have no inherent obligation to provide taxicab drivers with health insurance, they certainly have an interest in monitoring the effect of this lack of coverage on the public health system. Nearly 60 percent of respondents reported seeking medical care in the 12 months preceding the survey (excluding "not specified"), and 25 percent of these drivers received care at public health clinics or San Francisco General Hospital.<sup>58</sup>

<sup>&</sup>lt;sup>51</sup> City and County of San Francisco. Controller's Office, Taxi Commission, and Treasurer/Tax Collector's Office. <u>Taxicab Driver Survey</u>. April 2004.

<sup>&</sup>lt;sup>52</sup> City and County of San Francisco. Controller's Office, Taxi Commission, and Treasurer/Tax Collector's Office. <u>Taxicab Driver Survey</u>. April 2004: 9.

<sup>&</sup>lt;sup>53</sup> City and County of San Francisco. Controller's Office, Taxi Commission, and Treasurer/Tax Collector's Office. <u>Taxicab Driver Survey</u>. April 2004: 10.

<sup>&</sup>lt;sup>54</sup> City and County of San Francisco. Controller's Office, Taxi Commission, and Treasurer/Tax Collector's Office. <u>Taxicab Driver Survey</u>. April 2004: 10.

<sup>&</sup>lt;sup>55</sup> City and County of San Francisco. Office of the Controller. <u>Taxicab Industry Report: Rates of Fare and Gate Fees</u>. December 2005. <sup>56</sup>See Appendix B for an explanation of the calculation

<sup>&</sup>lt;sup>57</sup> City and County of San Francisco. Department of Public Health. <u>Taxicab Driver Health Care Coverage</u>. 2006: 14.

<sup>&</sup>lt;sup>58</sup> City and County of San Francisco. Controller's Office, Taxi Commission, and Treasurer/Tax Collector's Office. <u>Taxicab Driver Survey</u>. April 2004.

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Over the past several years the city has been analyzing the feasibility of providing health insurance to taxicab drivers under the current system. A recent report issued by the San Francisco Department of Public Health and the San Francisco Health Plan evaluated and concluded several possible methods to be feasible. They have recommended four plan scenarios. As stated in the report, the adaptation of these plans depends on decisions regarding whether the plan will be voluntary or mandatory, the level at which contribution rates will be set (15 percent or 20 percent) and determining the appropriate funding model.<sup>59</sup>

#### Retirement Security

Because of their low incomes, it is unlikely that most taxicab drivers have the ability to save for retirement in order to supplement their social security checks. In addition, they have no access to a pension or 401(k) plan and no ability to collectively bargain for these benefits because of their independent contractor status. Moreover, they pay both the employer and employee share of Social Security taxes.

Medallion holders arguably have more retirement security, since they can save some of the income they earn from leasing their medallion for retirement.

## Driver Entry and Medallion Holder Exit Options

A common concern under the current system is that elderly medallion holders have no incentive to exit the system because they lose their primary source of income once they relinquish their medallion.<sup>60</sup> Because medallion holders do not have an incentive to relinquish their medallion, the rate of turnover of medallions is very slow. In addition, new medallions are not regularly introduced into the system. According to the UTW, drivers currently at the top of the waiting list have waited over ten years.<sup>61</sup>

<sup>&</sup>lt;sup>59</sup> City and County of San Francisco. Department of Public Health. <u>Taxicab Driver Health Care Coverage</u>. 2006: iii.

<sup>60</sup> Kim, Hansu. Consultant and Former Executive Director of the San Francisco Taxi Association. Telephone interview. 16 March 2006

<sup>61 &</sup>quot;Objections to Transferability of Taxicab Permits." United Taxicab Workers 22 March 2006.

## Challenges in Customer Service

## **Availability**

A 2001 report by the San Francisco Urban Planning and Research Association (SPUR) declared that, "Availability—or rather the lack of it—is the key." While some aspects of the report are in dispute, taxicab drivers admit that there is a shortage during the night, weekends, and around outlying areas. Exact figures are hard to determine though, mostly due to the lack of consistent on-going customer service surveys and information. Understanding the exact difference in availability would help answer whether there is a shortage of taxicabs or an inefficient distribution of existing taxicabs.

## Reliability and Response Time

The San Francisco Taxicab Commission has set the following response time goals for taxicabs: 70 percent of the time taxicabs will arrive within 10 minutes of the service call, 80 percent within 15 minutes, and 99 percent within 30 minutes. However, the SPUR report revealed that the goals were neither enforced nor met. A similar study conducted at the end of 2005, concluded that while taxicab availability was adequate for flag downs at hotel stands and the SFO airport, "phone reservations did not meet the response time goals set by the Commission." The study found that 41 percent of dispatched taxicabs arrive in 10 minutes, 53 percent in 15 minutes, and 64 percent in 30 minutes; 35 percent of calls that were handled never arrived at all. In addition, people who live in the outlying areas of the city face the worst phone reservation and flag down rates.

## Quality of Driver

Important components of customer service involve whether drivers have the ability to: find the destination, understand English, arrive safely, and not overcharge. There is a direct correlation between the years of driving experience and improved customer service: full time drivers with four or more years of experience do better than their less experienced counterparts. <sup>68</sup> Driver quality improves as more drivers remain in the industry. Although some stakeholders claim that turnover rates are high, <sup>69</sup> the Controller's office estimates that 10-12 percent of drivers turn over each year. <sup>70</sup> This figure is much lower than the Department of Labor's estimated national turnover rate of 20 percent for all occupations. <sup>71</sup>

## Safety and Driver Age

The 2004 Taxicab Driver Survey reported that nearly 50 percent of respondents were under 45 years of age, and almost 74 percent were under 55 years old. Only 4.4 percent reported being 65 years of age or older.<sup>72</sup> Critics, however, questioned how representative the survey participants were to the

<sup>62&</sup>quot;Making Taxi Service Work in San Francisco: Final Report." *Nelson/Nygaard Consulting Associates.* Prepared for San Francisco Planning and Urban Research Association November 2001: 9.

<sup>63</sup> Weinstein, Mort. Taxicab Driver. Personal interview. 23 March 2006.

<sup>&</sup>lt;sup>64</sup> City and County of San Francisco. Taxicab Commission. <u>Taxicab/Ramped Taxi Rules and Regulations</u>. Undated: 3.

<sup>65 &</sup>quot;Making Taxi Service Work in San Francisco: Final Report." Nelson/Nygaard Consulting Associates. Prepared for San Francisco Planning and Urban Research Association November 2001: 9.

<sup>66 &</sup>quot;Taxi Availability Study for PCN Determination." Q2 Research Group. Prepared for the San Francisco Taxicab Commission. January 2006: 12

<sup>&</sup>lt;sup>67</sup> Office of the Controller, City Services Auditor, 2005 Taxicab Commission Survey Report. February 2006: 4.

<sup>&</sup>lt;sup>68</sup> Gorman, Gilbert, and Bruce Schaller. "Fixing New York City Taxicab Service." *Transportation Quarterly* Volume 50 Number 2 Spring 1996.

<sup>69</sup> Gruberg, Mark, Representative, United Taxicab Workers. Personal interview. 23 March 2006.

<sup>&</sup>lt;sup>70</sup> City and County of San Francisco. Department of Public Health. <u>Taxicab Driver Health Care Coverage</u>. 2006: 11.

<sup>71</sup> BLS Employee Turnover Rates: Nobscott Corporation. 9 November 2004. <a href="http://ww.nobscott.com/survey/index.cfm">http://ww.nobscott.com/survey/index.cfm</a>>.

<sup>&</sup>lt;sup>72</sup> City and County of San Francisco. Controller's Office, Taxi Commission, and Treasurer/Tax Collector's Office. <u>Taxicab Driver Survey</u>. April 2004.

taxicab industry and believe that the current taxicab system (because of its driving requirement<sup>73</sup>) creates incentives for drivers to remain driving long after the retirement age, jeopardizing the safety of pedestrians and other drivers.<sup>74</sup> Indeed, because the wait list for permits moves slowly, it is inevitable that many drivers are not awarded medallions until late in their careers. Although there is little statistical evidence that these older drivers are more prone to accidents, there is no doubt as to the prevalence of older medallion holders. According to a 2004 medallion holders list,<sup>75</sup> 329 drivers are over 70: 106 are Prop K medallions, 223 are Pre-K medallion holders. Because pre-Proposition K medallion owners do not have a driving requirement, they do not necessarily pose a safety risk. The safety risk will likely increase over the next 15-20 years, as the majority of post-Proposition K medallion holders (617) is currently between the ages of 50 and 70.

#### Fare Price

Taxicab demand is generally considered inelastic; "the percentage decrease in taxicab rides is less than the percentage increase in taxicab fares." Nonetheless, San Francisco taxicab fares remain the second highest in the country and fourth highest for long trips. As of January 2006, the taxicab rates set by the city were as follows: \$2.85 for the first one-fifth of a mile, \$0.45 for each additional one-fifth of a mile, \$0.45 for each minute spent waiting and a \$2.00 airport exit surcharge. Under these rates, an average trip of 5 miles with 5 minutes of wait time would cost \$15.80, which is approximately 11 percent more than the average of the cost of comparable trips in Chicago, Houston, Los Angeles, New York, Oakland and San Jose.

<sup>&</sup>lt;sup>73</sup> Kim, Hansu. Consultant and Former Executive Director of the San Francisco Taxi Association. Telephone interview. 16 March 2006.

<sup>&</sup>lt;sup>74</sup> Gillespie, Jim, Carl Macmurdo and Martin Smith. "Memo to Julian Potter, Public Policy Director re: Draft Proposal for Medallion Auction." 19 October 2005.

<sup>&</sup>lt;sup>75</sup> 2004 Medallion Holders List. Provided by Carl Macmurdo.

<sup>&</sup>lt;sup>76</sup> City and County of San Francisco, Department of Public Health. <u>Establishing a San Francisco Taxi Driver Health Care. Coverage Program: Administration, Cost, and Funding Options</u>. March 2006: 34

<sup>&</sup>lt;sup>77</sup> City and County of San Francisco, Department of Public Health. <u>Establishing a San Francisco Taxi Driver Health Care. Coverage Program: Administration, Cost, and Funding Options.</u> March 2006: 35.

<sup>78</sup> City and County of San Francisco. Office of the Controller. Taxicab Industry Report: Rates of Fare and Gate Fees. December 2005.

## APPENDIX B: CALCULATION OF AVERAGE DRIVER INCOME

To derive a better estimate of average taxicab driver income, we relied on figures provided by the 2005 Taxicab Industry Report issued by the Controller's Office,<sup>79</sup> which yielded the following assumptions:

# of Fares per 10-hour Shift Estimated Average Fare* Total Earnings per Shift		15 \$15.90 <b>\$238.50</b>
Total Mileage per Shift*		120.00
Fuel Economy (mpg)		15.00
Assumed Fuel Use per Shift (gallons)	12.00	
Average Price of Gasoline**		\$2.51
Price of Fuel per 10-hour Shift	\$30.10	
Gate Fee^		\$91.50
Total Cost per Shift		\$121.60

<sup>\*</sup> Average fare assumed at 5 miles with 5 minutes wait time.

Subtracting Total Cost per Shift from Total Earnings per Shift gives an average **Net income per shift of \$116.90**.

Applying this figure yields the following estimates for average weekly and yearly income (before taxes):

```
30 hours/week (3 shifts): $350.70/week or $18,236.40/year (52 weeks)
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40 hours/week (4 shifts): \$467.60/week or \$24,315.20/year

60 hours/week (6 shifts): \$701.40/week or \$36,472.808/year

This is an estimate: actual taxicab driver income will vary depending on how many hours worked, which shifts (evenings and weekends tend to be more lucrative), and the fluctuating price of gas—among other factors.

<sup>\*\*</sup> US Department of Energy Weekly Survey of San Francisco Market.

<sup>\$2.55</sup> is the average retail price of gas as of November 14, 2005.

<sup>^ \$1.50</sup> Paratransit add-on sunsets December 31, 2005

<sup>79</sup> City and County of San Francisco. Office of the Controller. Taxicab Industry Report: Rates of Fare and Gate Fees. December 2005.

### APPENDIX C: TAXICAB SYSTEM DEFINITIONS

**Deregulated**: Entry and exit into the taxicab market is deregulated and the number of taxicabs is not capped. Boards or commissions often still regulate fares, taxicab appearance, and customer service standards.

**Franchise:** The city partitions its neighborhoods and sells franchise service rights in each different section to taxicab companies. The companies are held to certain common standards, but beyond that determine how best to serve their areas.

**Public Permitting**: The city caps the supply of taxicabs and distributes medallions or driving rights to individual taxicab drivers based on a lottery, waiting list, or other application system. Taxicab drivers are not allowed to sell these rights to other drivers.

**Transferability**: The number of taxicabs is capped but licensed taxicab drivers can purchase medallions or driving rights from the city or from other taxicab drivers, usually through an auction system.

## APPENDIX D: ENFORCEMENT

The city's Taxicab Commission is the central regulator of the taxicab industry in San Francisco. The San Francisco Police Department's Taxicab Detail—which consists of less than five personnel—enforces taxicab regulations and handles customer complaints and driver training, issue permits and other miscellaneous issues. Most stakeholders complain that there is little enforcement of the driving requirement for medallion holders (described below), customer service standards, equipment safety inspections, and illegal street pickups by non-permitted taxis. Therefore, there is room for improvement in enforcing customer service standards

Proposition K instituted a driving requirement of 800 hours per year for all individuals who received medallions after its passage.<sup>82</sup> If one cannot fulfill the requirement, the medallion holder must return the medallion to the city. In addition, there are 467 medallions in use prior to the passage of Proposition K <sup>83</sup> to which the driving requirements does not apply.<sup>84</sup> The medallions must be returned to the city upon the owner's death.<sup>85</sup> Finally, drivers must fulfill a requirement in order to be eligible to join the waiting list for medallions.

Violations of the driving requirement are subject to penalties of various degrees, including the permanent revocation of a medallion. <sup>86</sup> During the 1990s, the Taxicab Commission revoked about 10 medallions, although some of these cases were later overturned by the Board of Appeals. <sup>87</sup> As noted above, many stakeholders believe that enforcement of the driving requirement is poor.

Ideas for improved enforcement can be induced by looking at New York City, as a mature taxicab market. A designated department within New York City Taxicab Limousine Commission, Uniformed Service Bureau (USB), enforces all rules, regulations and codes as well as conduct safety emissions inspections in the taxicab industry. A total of 160 officers conduct tri-annual taxicab inspections and enforce customer service standards. The main mission of USB is to ensure that well trained drivers do not over charge and arrive at the designation safely. The USB is not currently active in enforcing medallion owner driving requirement or brokers aside from drivers self-reporting information.

In addition to the ability to seize vehicles, USB also reserves the right to deny or revoke licenses. The USB relies on undercover operations to prevent illegal pickups and enforce non-discrimination in customer service. Though the size of New York City insures the anonymity of the officers, anonymity in San Francisco could be achieved through other approaches. In 2005, USB generated \$136 million from citations and fines, <sup>88</sup> which was returned to the general city fund. Because the revenue generated is returned to the general fund and does not directly benefit the commission, it is not the main concern when size of the staff is being considered.

<sup>80</sup> Machen, Heidi. Executive Director, Taxi Commission. Personal interview 3 March 2006.

<sup>81</sup> Gillespie, Paul, Taxicab Commissioner. Personal interview. 23 March 2006.

<sup>82</sup> City and County of San Francisco. Police Code. Article 16. Section 1076. <u>Definitions</u>. Undated.

<sup>83 2004</sup> Medallion Holders List. Provided by Carl Macmurdo.

<sup>84</sup> City and County of San Francisco. Mayor's Taxi Task Force Final Report. 22 May 1998: 4.

<sup>85</sup> Machen, Heidi. Executive Director, Taxi Commission. Personal interview 3 March 2006.

<sup>86</sup> San Francisco Taxi Commission Homepage.

<sup>&</sup>lt;a href="http://www.sfgov.org/site/taxicommission\_page.asp?id=8130.">http://www.sfgov.org/site/taxicommission\_page.asp?id=8130.</a>

<sup>87</sup> Simpson, Vince. San Francisco Taxicab Detail. Telephone interview. 10 April 2006.

<sup>88</sup> Mulling, Pansy. Director of Enforcement, City of New York, Taxicab Limousine Commission. Telephone interview. 12 April 2006.

### APPENDIX E: Transferability in Other U.S. Cities

Criteria	Boston	Chicago	New York		
In place since	Not Available	1989 <sup>89</sup>	1937		
Number of Medallion	1,825	6,750	12,487		
Value of Medallion	\$285,000	\$56,000	\$292,600-344,400		
Method of Initial Sale	Public Auction <sup>90</sup>	Public Auction	Public Auction		
Transfer Tax	Not Available	5-10 percent	5 percent		
Number of Drivers	6,000	4,000	49,200		

#### **Boston**

Boston has had a medallion system since the early 1930's. From 1934 to 1997, there were 1,565 medallions, creating a large undersupply. 91 In 1990, the State Department of the Public Utilities ordered a medallion increase, but it took an appeals court ruling to force the Boston Police Commissioner to increase the medallions. <sup>92</sup> Today Boston has 1,825<sup>93</sup> medallions and approximately 6,000 taxicab drivers.<sup>94</sup> Each medallion costs around \$285,000.<sup>95</sup> You can own more than one medallion and there is no driving requirement.

### Chicago

Chicago switched from a medallion system where the city distributed public permits similar to San Francisco's current system, to a transferability system less than a decade ago. Currently there are 6,800 medallions in service. Individuals or corporations can own Chicago taxicab medallions, and licenses must be renewed each year. The current market rate for a medallion is \$56,000.96 Medallions are sold via public auction: five to ten percent of the proceeds go to the city, and the remainder of the profits go to the driver selling the medallion. 97

#### **New York City**

New York's transferability system has been in place since 1937. To avoid the oversupply of medallions, the Haas Act in 1937 limited the number of taxicab medallions but continued to allow for transfer between owners. The act also included a provision to issue additional medallions after "a deliberate administrative process"98 but was removed in 1971. There are 49,200 drivers and 12,487 individual and corporate medallions in the current system. 99 Medallion transfers between owners incur a transfer tax of 5 percent while the city keeps 100 percent of revenue generated from initial medallion sales. Between 1996 and 1999, the city issued 900 additional medallions. The medallions sold for unprecedented prices of \$292,600 to \$344,400, and generated \$96.8 million for the city. 100 For corporate medallions, companies can own more than one medallion.

<sup>89</sup> Bremner, Brian. "Opponents stake out turf in taxical deregulation war." Crain's Chicago Business 30 June 1986.

<sup>90</sup> Brown, Laura. "Hub Cab Fare: \$ 171,000; Medallions Fetch Premium Prices at Second Auction." The Boston Herald 18 September 1999.

<sup>91 &</sup>quot;Hailing a Taxicab Ruling." *Boston Business Journal* 11 July 1997. 92 "Hailing a Taxicab Ruling." *Boston Business Journal* 11 July 1997.

<sup>93</sup> Berliner, Dana. "Running Boston's Bureaucratic Marathon." Institute for Justice. Available at

<sup>&</sup>lt;a href="http://www.ij.org/publications/city\_study/CitStud\_Boston\_report.html">http://www.ij.org/publications/city\_study/CitStud\_Boston\_report.html</a>

<sup>94</sup> Wangsness, Lisa. "Councilor Wants Riders' Rights Posted in Cabs." The Boston Globe. 26 November 2005

<sup>&</sup>lt;sup>95</sup> Wedge, David. "Fare game: Turf wars are big cop concern." The Boston Herald 5 January 2005.

<sup>&</sup>lt;sup>96</sup> United States. Securities and Exchange Commission. Form 10-K: Medallion Financial Corporation. 2005.

<sup>97</sup> Wiedersberg, Steve. President of the Chicago Professional Taxicab Drivers Association. Telephone interview. 10 April 2006.

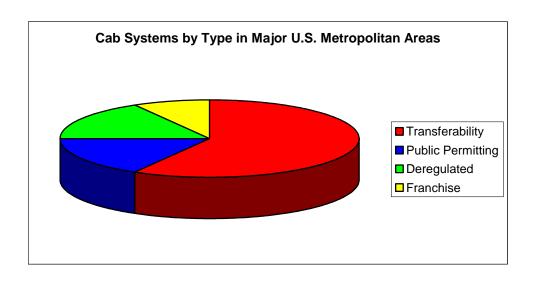
<sup>98</sup> Schaller, Bruce. "Villain or Boogeyman? New York's Taxicab Medallion System." Transportation Quarterly Volume 50 Number 1 Winter 1996.

<sup>99</sup> Schaller, Bruce. "Villain or Boogeyman? New York's Taxicab Medallion System." Transportation Quarterly Volume 50 Number 1

<sup>100</sup> Schaller, Bruce. "NYC Taxicab Fact Book." June 2006.

## APPENDIX F: TAXICAB SYSTEMS IN LARGEST U.S. METROPOLITAN AREAS

Population Rank	City	Current Taxicab System
1	New York City	Transferability
2	Los Angeles	Franchise
3	Chicago	Transferability
4	Washington, D.C. <sup>101</sup>	Deregulated
5	San Francisco	Public Permitting
6	Philadelphia 102	Transferability
7	Boston	Transferability
8	Detroit <sup>103</sup>	Transferability
9	Dallas	Not Available
10	Houston	Not Available
11	Atlanta	Transferability
12	Miami <sup>104</sup>	Transferability
13	Seattle <sup>105</sup>	Public Permitting
14	Phoenix <sup>106</sup>	Deregulated
15	Minneapolis	Not Available



<sup>&</sup>lt;sup>101</sup> Note: this metropolitan area technically includes Washington, D.C. and Baltimore.

<sup>102</sup> Schaller, Bruce. "NYC Taxicab Fact Book." June 2006.

<sup>103</sup> Berliner, Dana. "How Detroit Drives Out Motor City Entrepreneurs." Institute for Justice. Available at

<sup>&</sup>lt;a href="http://www.ij.org/publications/city\_study/CitStud\_Detroit\_report.html">http://www.ij.org/publications/city\_study/CitStud\_Detroit\_report.html</a>.

Miami-Dade County Consumer Services.
 March 2006. <a href="http://www.miamidade.gov/csd/taxicab\_for-hire\_faqs.asp">http://www.miamidade.gov/csd/taxicab\_for-hire\_faqs.asp</a>.
 King County. 2004 Taxicab Annual Report.
 April 2005.

<sup>106</sup> Boroski, John W. and Gerard C.S. Mildner. "An Economic Analysis of Taxicab Regulation in Portland, Oregon." Cascade Policy Institute Policy Perspective 1007. April 1998.

# APPENDIX G: ADDITIONAL EQUITY CONCERNS

The monopoly rights granted to medallion holders also result in an unequal distribution of income between medallion holding and non-medallion holding taxicab drivers. Some view this disparity as inequitable since medallion holders did nothing to deserve the extra income but put their names on a waiting list and pay a small fee. Others argue that the additional income is justified because most medallion holders spend many years driving a taxicab, waiting patiently for their turn to receive a medallion. In fact, although some UTW representatives believe that leasing income should be taxed to establish benefit programs for all taxicab drivers, they generally support the current system because it ensures that all drivers can become medallion holders if they are willing to invest their time in the industry. Indeed, with UTW's support, driving requirements were enacted for medallion applicants (people on the waiting list). This prevents non taxicab drivers from simply putting their names on the list and obtaining a medallion.

This debate is complicated by the fact that there are medallion holders who do not drive a taxi, either because they received their medallions prior to Proposition K and thus not subject to the driving requirement or simply because they can get away with the poor city enforcement. It is likely that some of these individuals are elderly drivers who are physically unable to drive safely, but are unwilling to relinquish their medallions because it is their primary source of income. These individuals are able to earn thousands of dollars by leasing out their medallions. Some argue that this situation is especially inequitable because there are many drivers who want a medallion, but cannot get a medallion in a timely manner.

<sup>&</sup>lt;sup>107</sup> Gruberg, Mark, Representative, United Taxicab Workers. Personal interview. 23 March 2006.

## APPENDIX H: SERVICE RANKINGS OF LOS ANGELES TAXICABS

In Los Angeles, there are nine taxicab companies and 2, 303 licensed taxicabs. The ordinance that set up the franchise system determined the franchise fee. The franchise fee of \$82.18 per taxicab per month works out to \$2.2 million per year (\$82.18 \* 2,303 taxicabs per month \* 12 months) for the city and is used to maintain the Taxicab Regulation Division. 109

#### WEIGHTED BY NUMBER OF TRIPS COMPLETED

Service Response in Primary Zones	cabs	0-15 min	16-30 min	31-60 min	>60 min	0-30 min	ave min	ttl trips	Rating	TSI Index
Bell Cab Company	261	84.73%	12.79%	2.33%	0.15%	97.52%	10.1	303,669	excellent	65.0
Beverly Hills Cab Co.	163	77.68%	20.01%	2.12%	0.19%	97.69%	11.8	310,092	good	65.0
Los Angeles Checker Cab Co.	269	82.05%	15.49%	2.16%	0.31%	97.54%	10.8	243,107	excellent	65.0
Independent Taxicab Owners' Association	246	71.42%	23.13%	4.87%	0.57%	94.55%	13.6	200,089	satisfactory	47.0
United Checker Cab Company	70	83.12%	15.31%	1.37%	0.20%	98.43%	10.2	118,085	excellent	65.0
United Independent Taxi	289	76.58%	20.00%	3.09%	0.32%	96.58%	12.5	322,507	good	65.0
City Cab	166	66.22%	25.67%	7.22%	0.88%	91.89%	16.4	189,697	satisfactory	32.0
United Taxicab of San Fernando Valley	100	74.33%	21.52%	3.70%	0.45%	95.85%	13.0	248,791	satisfactory	56.0
L. A. Taxicab Co-Operative (Yellow Cab)	739	75.49%	18.55%	4.88%	1.09%	94.04%	12.6	414,074	satisfactory	59.0
Total	2303	76.97%	19.00%	3.55%	0.49%	95.96%	12.3	2,350,111	good	65.0

<sup>108 &</sup>quot;Vehicle Service Statistics for the 2004 Calendar Year." Provided by Thomas Drischler, Los Angeles Taxicab Administrator. 19 April 2006.

<sup>&</sup>lt;sup>109</sup> Drischler, Thomas. Los Angeles Taxicab Administrator. E-mail interview. 19 April 2006.

# REFERENCES

# Articles, Books, and Reports

"8 Keys to Keeping Taxi Issues From Becoming a Political Hot Potato." *Taxi, Livery and Paratransit Association Taxicab Newsletter* August 2005.

"14 Reasons Why Permit Transferability is a Bad Idea." United Taxicab Workers. 1 June 2004.

Albertí, Meritxell, Angel León, and Gerard Llobet, "Evaluation of a Taxi Sector Reform: A Real Options Approach." 19 October 2003.

"Analysis of Taxicab Deregulation and Re-regulation." *Price Waterhouse*. Prepared for the Office of Government Services 1993.

Balaker, Ted and Adrian Moore. "Do Economists Reach a Conclusion on Taxicab Deregulation?" *Econ Journal Watch* Volume 3 Number 1 January 2006: 109-130.

Berliner, Dana. "How Detroit Drives Out Motor City Entrepreneurs." Institute for Justice. Accessed at <a href="http://www.ij.org/publications/city\_study/CitStud\_Detroit\_report.html">http://www.ij.org/publications/city\_study/CitStud\_Detroit\_report.html</a> <a href="http://www.ij.org/publications/city\_study/CitStud\_Boston\_report.html">http://www.ij.org/publications/city\_study/CitStud\_Boston\_report.html</a>

Boroski, John W. and Gerard C.S. Mildner. "An Economic Analysis of Taxicab Regulation in Portland, Oregon." *Cascade Policy Institute Policy Perspective 1007*. April 1998.

Bremner, Brian. "Opponents Stake Out Turf in Taxicab Deregulation War." Crain's Chicago Business 30 June 1986.

Brown, Laura. "Hub Cab Fare: \$ 171,000; Medallions Fetch Premium Prices at Second Auction." *The Boston Herald* 18 September 1999.

Dempsey, Paul Stephen. "Taxicab Industry Regulation, Deregulation & Regulation: The Paradox of Market Failure." *Transportation Law Journal* University of Denver College of Law Volume 24 #1 Summer 1996.

Farber, Henry S. "Is Tomorrow Another Day? The Labor Supply of New York City Cabdrivers." *Journal of Political Economy* 2005: 46-82.

Finn, Robin. "The Guy Who Helps Paint the Town Yellow." The New York Times 4 February 2004.

Flores-Guri, Daniel. "An Economic Analysis of Regulated Taxicab Markets." Review of Industrial Organizations 23 2003: 255-266.

The San Francisco Taxicab Industry: An Equity Analysis

Friedman, Lee, The Microeconomics of Public Policy Analysis. Princeton: Princeton University Press, 2002.

Flint, Anthony. "Ruling Boosts Mayor's Taxi-Permit Plan." The Boston Globe 9 July 1997.

Gallick, Edward C. and David E. Sisk. "A Reconsideration of Taxi Regulation." *Journal of Law, Economics, & Organization* Volume 3 Number 1 Spring 1987.

Gillespie, Jim, Carl Macmurdo and Martin Smith. "Memo to Julian Potter, Public Policy Director re: Draft Proposal for Medallion Auction." 19 October 2005.

Gorman, Gilbert, and Bruce Schaller. "Factors of Production in a Regulated Industry: New York Taxi Drivers and the Price for Better Service" *Transportation Quarterly* Volume 49. ---. Number 4 Fall 1995 "Fixing New York City Taxicab Service." *Transportation Quarterly* Volume 50 Number 2 Spring 1996.

Gray, Tim. "A Lender Hopes to Profit from the New Taxi Math." New York Times 25 January 2004.

"Hailing a Taxicab Ruling." Boston Business Journal 11 July 1997.

Herel, Suzanne. "Taxi Permits Eyed as Revenue Source." San Francisco Chronicle 2 June 2004.

Kim, Hansu. "Improving How We Get Around Taxi Medallions: Why Give SF Assets Away?" San Francisco Chronicle 29 March 2005.

---. "Taxicab Proposal." Undated.

Lagos, Richard. "An Analysis of the Market for Taxicab Rides in New York City." *International Economic Review* 44 (2) 2003: 423-433.

Luo, Michael. "For NY Hacks, Tin Taxi Medallions Worth Their Weight in Gold." New York Times 16 April 2004.

"Making Taxi Service Work in San Francisco: Final Report." Nelson/Nygaard Consulting Associates. Prepared for San Francisco Planning and Urban Research Association November 2001.

McCormack, Scott. "Riches in Niches." Forbes 27 July 1998.

Mundy, Ray. "Ground Transportation Study: Salt Lake City, Utah." 31 July 2005. ---. "Using Independent Contractor Drivers." October 12, 2005.

"No on SF Prop N." San Francisco Chronicle 26 October 2003.

"NYC Cabbies Say No To GPS." Techweb 21 March 2006.

"Objections to Transferability of Taxicab Permits." United Taxicab Workers 22 March 2006.

Schaller, Bruce. "A Regression Model of the Number of Taxicabs in U.S. Cities." January 2005.

- ---. "Elasticities For Taxicab Fares and Service Availability." Transportation 26 1999: 283-297.
- ---. "Higher Pay, Safer Cabbies: An Analysis of the Relationship Between Driver Income and Taxi Crashes in New York City." Prepared for Transportation Alternatives January 2004.
- ---. "Issues in Fare Policy: The Case of the New York City Taxicab Industry." Presented at Transportation Research Board 1998 Annual Meeting.
- ---. "NYC Taxicab Fact Book." June 2006.
- ---. "Villain or Boogeyman? New York's Taxicab Medallion System." *Transportation Quarterly* Volume 50 Number 1 Winter 1996.

"Taxi Availability Study for PCN Determination." *Q2 Research Group*. Prepared for the San Francisco Taxicab Commission. January 2006.

"Taxi Industry Reform Initiatives." San Francisco Taxi Association. Prepared for the City and County of San Francisco. 18 March 2005.

Wangsness, Lisa. "Councilor Wants Riders' Rights Posted in Cabs." *The Boston Globe.* 26 November 2005

Wedge, David. "Fare Game: Turf Wars are Big Cop Concern." The Boston Herald 5 January 2005.

Yang, Hai; and S.C. and K.I. Wong. "Demand Supply Equilibrium of Taxis Services in Network Under Competition and Regulation." *Transportation Research* Part B 36 2002: 799–819.

#### **Public Documents**

City and County of San Francisco. San Francisco Taxicab Commission. Annual Report. 2002.

- ---. Police Code. Article 16. Section 1076. Definitions. Undated.
- ---. Taxicab Commission. Efficiency Plan, November 2005.
- ---. Department of Public Health. <u>Establishing a San Francisco Taxi Driver Health Care. Coverage Program: Administration, Cost, and Funding Options</u>. March 2006.
- ---. Office of the Controller. <u>Health Benefits for San Francisco Taxi Drivers: Health Plan Alternatives</u>, Funding, and Implementation. October 2003.
- ---. Office of the Treasurer and Tax Collector. <u>Mayor Gavin Newsom and Treasurer Cisneros</u>
  <u>Release \$2 million to Working Families Through the New Working Families Credit Program.</u> 30
  September 2005.
- ---. Mayor's Taxi Task Force Final Report. 22 May 1998.
- ---. Office of the Registrar. San Francisco Voter Information Pamphlet. 6 June 1978: 316-319
- ---. Office of the Controller, City Services Auditor, <u>2005 Taxicab Commission Survey Report</u>. February 2006.
- ---. Department of Public Health. <u>Taxicab Driver Health Care Coverage</u>. 2006.
- ---. Controller's Office, Taxi Commission, and Treasurer/Tax Collector's Office. <u>Taxicab Driver Survey</u>. April 2004.
- ---. Office of the Controller. <u>Taxicab Industry Report: Rates of Fare and Gate Fees</u>. December 2005.
- ---. Taxicab Commission. Taxicab/Ramped Taxi Rules and Regulations. Undated.
- ---. San Francisco Taxi Commission List of Medallion Holders by Date of Birth. 20 May 2004.

King County. 2004 Taxicab Annual Report. 1 April 2005.

New York City. Taxi & Limousine Commission. <u>Taxicab Owners Rules</u>. 12 March 2006.

United States. Securities and Exchange Commission. <u>Form 10-K: Medallion Financial Corporation</u>. 2005.

## City of San Francisco Internal Documents

"Medallion Holders by Date of Birth." San Francisco Taxi Commission. 20 May 2004. (Provided by Carl Macmurdo).

Kertz, Mark. Memo to John Taylor re: Regulation on Taxicab Gates. 28 May 1986.

Little, Naomi. Draft Memo to Mayor Gavin Newsom re: Proposal to Reform Proposition K (1978). May 2004.

Machen, Heidi. Memo to Mayor Gavin Newsom re: Proposed Taxi Commission FY 2006-2007 Budget. 8 February 2006.

Office of the City Attorney. Memo to Mariann Costello President, Taxi Commission re: Advice Request. 25 April 2000.

Rydstrom, Todd. Memo to Supervisor Sean Elsbernd re: Summary of Taxi Industry Analysis from July 2004. 4 May 2005.

### Websites

<u>BLS Employee Turnover Rates</u>. Nobscott Corporation. 9 November 2004. <a href="http://www.nobscott.com/survey/index.cfm">http://www.nobscott.com/survey/index.cfm</a>.

Measure J: Universal Health Care Declaration of Policy. 16 February 1999.

<a href="http://www.smartvoter.org/1998nov/ca/sf/meas/]/>.</a>

Miami-Dade County Consumer Services. 14 March 2006.

<a href="http://www.miamidade.gov/csd/taxicab\_for-hire\_faqs.asp">http://www.miamidade.gov/csd/taxicab\_for-hire\_faqs.asp</a>.

New York City Taxi & Limousine Commission Homepage. 15 April 2006.

<a href="http://www.nyc.gov/html/tlc/html/home/home.shtml">http://www.nyc.gov/html/tlc/html/home/home.shtml</a>.

<u>Phase 1 of the TLC Medallion Sale Completed.</u> NYC Taxi and Limousine Commission. 16 April 2004. <a href="https://www.nyc.gov/html/tlc/news/press04\_04.shtml">www.nyc.gov/html/tlc/news/press04\_04.shtml</a>.

# San Francisco Taxi Commission Homepage.

<a href="http://www.sfgov.org/site/taxicommission\_page.asp?id=8130.">http://www.sfgov.org/site/taxicommission\_page.asp?id=8130.</a>

#### Taxi-L

<a href="http://taxi-library.home.att.net/index.htm">http://taxi-library.home.att.net/index.htm</a>

The San Francisco Taxicab Industry: An Equity Analysis

### United Taxicab Workers

<http://utw.us>

### **Personal Contacts**

Bardach, Gene. Professor of Public Policy, Goldman School of Public Policy, University of California, Berkeley. Repeated consultation.

Drischler, Thomas. Los Angeles Taxicab Administrator. E-mail interview. 19 April 2006.

Ellwood, John. Professor of Public Policy, Goldman School of Public Policy, University of California, Berkeley. Personal interview. 4 April 2006.

George-Williams, Thomas, Chairperson of Executive Board, United Taxicab Workers. Personal interviews. 3 March and 23 March 2006.

Gillespie, Jim. General Manager, Yellow Cab Cooperative. Personal interview. 3 March 2006.

Gillespie, Paul, Taxicab Commissioner. Personal interview. 23 March 2006. ---. Telephone interview. 6 April 2006.

Gruberg, Mark, Representative, United Taxicab Workers. Personal interview. 23 March 2006. ---. Repeated telephone and e-mail correspondence.

Hinds, Dan. President, National/Veterans Cab; meeting, 3 March 2006.

Graffis, Ruach. Membership Secretary, United Taxicab Workers; meeting 23 March 2006.

Kim, Hansu. Consultant and Former Executive Director of the San Francisco Taxi Association. Telephone interview. 16 March 2006.

---. Repeated telephone and e-mail correspondence.

Kowalsky, Michael. Executive Vice President, Medallion Financial Group. Telephone interview. April 20 2006.

Lazar, John. President and General Manager, Luxor Cabs. Personal interview. 3 March 2006.

Little, Naomi. Director of Purchasing, Office of Contract Administration. Telephone interview. 13 April 2006.

Machen, Heidi. Executive Director, Taxi Commission. Personal interview 3 March 2006. ---. Repeated telephone and e-mail correspondence.

Macmurdo, Carl. President of the Permitted Drivers Association. Personal interview. 3 March 2006. ---. Repeated telephone and e-mail correspondence.

Martinez, Ed. San Francisco Police Legal Department. Telephone interview. 10 April 2006.

The San Francisco Taxicab Industry: An Equity Analysis

Mathews, Biju. New York Driver Organizer and author of TAXI!. Personal interview. 8 April 2006.

Mehmood, Tariq. Taxicab driver. Personal meeting. 23 March 2006.

Mirabila, Joe. Personal meeting. 23 March 2006.

Mulling, Pansy. Director of Enforcement, City of New York, Taxicab Limousine Commission. Telephone interview. 12 April 2006.

Palmer, Jennifer. Assistant Director of Constituent Management, City of New York, Taxicab Limousine Commission. Telephone interview. 31 March 2006.

Raphael, Steve, Ph.D. Associate Professor of Public Policy, University of California. Personal interview. 18 April 2006.

Rydstrom, Todd. Director, Budget and Analysis Division, San Francisco Controller's Office. Personal interview. 4 April 2006.

Schaller, Bruce. Principal, Schaller Consulting. Telephone interview. 19 March 2006. ---. Repeated telephone correspondence.

Simpson, Vince. San Francisco Taxicab Detail. Telephone interview. 10 April 2006.

Smith, Martin B. Taxi Commissioner. Personal interview. 3 March 2006.

Spain, Mike. Medallion Holder. Personal interview. 3 March 2006.

Sullivan, Steve. General Manager of Metro Cab in Boston. Telephone interview. 18 April 2006.

Weinstein, Mort. Taxicab Driver. Personal interview. 23 March 2006.

Wiedersberg, Steve. President of the Chicago Professional Taxicab Drivers Association. Telephone interview. 10 April 2006.