TAXI INDUSTRY DRIVER HEALTH CARE PROPOSAL

I. EXECUTIVE SUMMARY

1.The taxi companies propose that $3.8 MM/annum be allocated for a universal health care plan for taxi drivers. The source of this funding would come from an increase of $0.25 on the flag drop. These monies would be collected via a $3.75 gate increase ($0.25 x 15 trips per shift).

This funding mechanism is recommended as a good first effort, an incremental approach that takes into account numerous unknowns about the demographics of a taxi driver health plan and the impact increases in meter rates and gate fees will have on those who use taxis in San Francisco.

2.The monies so collected could be allocated to, among other possible plans, the American All Risk Benefit Insurance Services (AARBIS) plan. AARBIS is being recommended by the Medallion Holders Association, This is a basic, limited benefits package that would be paid for entirely from the $3.8MM.

Another option the City can consider is contributing the $3.8 MM to the Newsom/Ammiano universal health care program. This will offset the $1-3MM cost of services provided at SFGH to taxi-drivers and also be a significant budgetary offset in the funding of any such universal health care program.

These options do not exclude individual drivers from supplementing a basic care package from their own pockets to cover other potential out-of-pocket costs.

3.The $11MM + plan proposed by the majority of the Taxicab Healthcare Subcommittee is unrealistic. The industry cannot absorb the economic impact of such an expense and remain viable. The underlying assumption of an unlimited customer base supported by ever-rising fares is unrealistic. Assuming an inelastic price demand at any and every fare level, over an extended period, is nonsensical, spurious and without merit in orthodox economic analysis. The majority on the subcommittee, however, would not accept this and other financial realities.

A series of lock-step 3 to 2 majority votes ensured that the subcommittee would not address the substantive issues of (1) setting realistic budgetary constraints (2) based on actual funding sources. The majority could not accept that the cost add-ons they propose are additional *taxes* on the business of supplying taxi services in San Francisco. These proposed taxes, if ever implemented, will have a negative economic impact on all stakeholders: the overall economy of San Francisco, the riding public, taxi drivers, medallion holders and taxi companies.

4.The majority on the subcommittee also appeared to believe that the existing system, which allows medallion holders to “profit” from leasing the medallion, should be swamped by imposing thereon exorbitant taxes, without any offsetting compensation.

5.The minority on the subcommittee, however, supported a universal coverage plan based on real-world economics. The minority stressed that health care for drivers could not be viewed in isolation. To make universal taxi driver health care effective and affordable, it must be coupled with scheduled, non-discretionary regulatory reviews of meter rates and gate fees. Changes in meter rates and gate fees should be governed by appropriate indices and allowable costs, not the prevailing political winds. This is especially crucial when it comes to ensuring that the cost of driver health care

remains affordable. Health costs are expected to at least quadruple in the next decade. Reforms must include, but not be limited to:

- Rewriting of existing legislation to remove the threats of opportunistic lawsuits
- Annual and systematic review of the rate structure – fares and gates.
- Acknowledgement that health care costs have historically risen faster than general inflation (CPI) and that health care costs will continue to exceed the normative inflationary benchmark (as represented by the CPI) for the foreseeable future.
- The City must commit to a true revenue-requirements approach to rate making, one that minimizes fares, but nonetheless allows a fair return on investment and the recovery of all legitimate costs associated with the cab business.

6.The AARBIS and/or a similar-costing plan could be implemented quickly. Starting small and carefully ascending the learning curve, the taxi industry would become more efficient as a conduit of driver health care, especially as the database for determining the reasons why drivers demand health care expands.

7.The taxi companies request that Board of Supervisors and Taxi Commission seriously consider the UC Goldman School recommendation for immediately instituting an auction system more newly-issued medallions in order to, among other things, fund a more extensive driver health care program. The City could use all the funds from initial medallion issuance for that purpose, and thereafter charge a transfer fee for each medallion transferred to fully fund and thus make self-sustaining an even broader health program for all drivers.

II. PROPOSAL DETAILS

A. Calculating the Gate and Flag-Drop Revenues

Table 1
Calculating the Impact of a $0.25 Increase on the Flag-Drop

Number of cabs	1,381
Shifts/Day	2
Max No. Shifts	1,008,130
Number Pickups/Shift	15
Total Fare Rides	15,121,950
Health Revenues	$3,780,488
Gates/shift/health/Add-on	$3.75
Disbursement per driver- 7000 drivers	$540
Monthly	$45
Disbursement per driver- 4000 drivers	$945
Monthly	$79

- Number of current medallions
- 10 hour shifts
- 2x365x1,381
- 15 Rides per shift. Controller's assumption.
- Add-on flag drop revenues divided by number of shifts

●Add-on flag-drop revenues divided by 7,000
●Divided by 12
●Add-on flag drop revenues divided by 4,000
●Divided by 12

B. Higher Costing Plan Proposals and Underlying Assumptions

On January 16, 2007, the Controller's Office presented a study of "Market Conditions before Fare Increases to Support Driver Health Care." The higher priced plan proposed by the majority of the subcommittee is based on this presentation. The minority of the subcommittee was convinced that the economic impact associated with a more costly plan would be ruinous to the San Francisco taxi industry.

Table 2
"Market Conditions before Fare Increase Used to Support Driver health Care"

Estimated Average Fare	$16.16
Estimated No. Fares per Year	15,121,950
Driver Gross Receipts	$244,219,493

The Controller presented a number of elasticity estimates, by researcher, date of study and markets studied. These are presented below in Table 3.

Table 3
"Taxi Industry Studies Reviewed"

Author (Year)	Elasticity Estimates	Market Studied
Schaller (1999)	-0.22	New York, USA
Booz Allen Hamilton (1993)	-0.36	Canberra, Australia
Anas and Moses (1984)	-1.31	Seoul, South Korea
Geltner and Barros (1984)	-1.11	Maceio, Brazil
Booz Allen Hamilton (1993)	-0.3 to -0.8	International
Boroski and Mildner (1998)	-0.5 to -1.0	International

In discussing price elasticity of demand, the Controller made the following conclusions:

- "Elasticity measures how much demand for a service declines in response to a price increase for such a service."
- If Elasticity equals -0.3, a 10% increase in the average taxi fare would result in an estimated 3% decline in ridership but an estimated 7% increase in total driver revenue."

On January 16, 2007 the Controller summed up his position on fare changes and revenues in a bullet-pointed presentation entitled "Effects on Driver Revenue":

- The DPH March 2006 Study reviewed other elasticity studies, concluding that San Francisco would most likely be similar to the -0.22 elasticity of demand

observed in New York City.

- Schaller believed elasticity in San Francisco would most likely be in the -0.20 to – 0.35 range
- When elasticity is between 0 and – 1, fare increases result in total driver revenue increasing.
- Only when the price of elasticity of demand is below -1 will fare increases result in total driver revenue declining.

The Controller took five different "Elasticity Possibilities" and created a matrix relating fare increases (1 to 15 percent increase over today's average fare) with the five different elasticities (range from -.2 to -.35), and created a table entitled: "Estimated Change in Total Driver revenue under various Fare Rate Change Assumptions." To ensure full understanding of the algorithm used by the Controller, the companies reproduce his results as shown in Table 4 below:

Table 4
"Estimated Change in Total Driver Revenue under various Elasticity & Fare Rate Change Assumption."

Average Percent	Average Fare Increase	Incremental Increase	-0.2	-0.22	-0.25	-0.3	-0.35
0.00%	$16.15						
1.00%	$16.31	$0.16	$1,953,756	$1,904,912	$1,831,646	$1,709,536	$1,587,427
2.00%	$16.47	$0.32	$3,907,512	$3,809,824	$3,663,292	$3,419,073	$3,174,853
3.00%	$16.63	$0.48	$5,861,268	$5,714,736	$5,494,939	$5,128,609	$4,762,280
4.00%	$16.80	$0.65	$7,815,024	$7,619,648	$7,326,585	$6,838,146	$6,349,707
5.00%	$16.96	$0.81	$9,768,780	$9,524,560	$9,158,231	$8,547,682	$7,937,134
6.00%	$17.12	$0.97	$11,722,536	$11,429,472	$10,989,877	$10,257,219	$9,524,560
7.00%	$17.28	$1.13	$13,676,292	$13,334,384	$12,821,523	$11,966,755	$11,111,987
8.00%	$17.44	$1.29	$15,630,048	$15,239,296	$14,653,170	$13,676,292	$12,699,414
9.00%	$17.60	$1.45	$17,583,803	$17,144,208	$16,484,816	$15,385,828	$14,286,840
10.00%	$17.77	$1.62	$19,537,559	$19,049,120	$18,316,462	$17,095,364	$15,874,267
11.00%	$17.93	$1.78	$21,491,315	$20,954,032	$20,148,108	$18,804,901	$17,461,694
12.00%	$18.09	$1.94	$23,445,071	$22,858,944	$21,979,754	$20,514,437	$19,049,120
13.00%	$18.25	$2.10	$25,398,827	$24,763,857	$23,811,401	$22,223,974	$20,636,547
14.00%	$18.41	$2.26	$27,352,583	$26,668,769	$25,643,047	$23,933,510	$22,223,974
15.00%	$18.57	$2.42	$29,306,339	$28,573,681	$27,474,693	$25,643,047	$23,811,401

Under this approach, one can select an element in the matrix, i.e. Fare of $17.12 and an elasticity of -0.2, and conclude that marginal revenues of $11,722,536 will be generated, ad infinitum. This matrix represents the basic financing plan underscoring all plans currently being put forward by the City. This simplistic and static approach has minimal if any operational value.

All adopted add-ons to the taxi industry represent a tax on doing business. These add-ons shift the supply curve (the sum of all the marginal cost schedules in the taxi industry) upwards and to the left. This causes the real equilibrium price to increase. Regulators are well aware that they must price (set fares) at a point (supply=demand) that approximates this intersection of demand and supply. If they do not, there will either be perceived shortages or surpluses.

Usually elasticities vary along a demand schedule. This schedule or function relates the quantities of a good that will be bought at different prices. Elasticities are not static, as assumed under the Controller's approach. Elasticities change along the demand schedule and, over time, as a function of consumers rearranging their purchasing preferences. The first law of demand is simple: there is some higher price (fare) at which less of the good (taxi services) is demanded. The second law of demand, which has been completely overlooked in this static analysis, is equally simple: in the long-run, demand is more elastic as more substitutes become readily available.

Estimating demand elasticities from raw data is difficult. Models to estimate determinants of demand must be specified using the tools of orthodox economic analysis. Models must be rigorously challenged by utilizing relatively complex statistical tests. Identification problems must be scrutinized. The studies upon which the Controller relied were not San Francisco-specific and were outdated. These estimates were not accompanied by a detailed analysis of the four basic phases required to estimate demand:

Phase I – Preliminary Analysis

- Available data
- Economic theory
- Pre-selection of potential models
- predictability of explanatory variables
- Forecast of explanatory variables

Phase II Statistical analysis

- Statistical estimation (multiple regression)
- Statistical testing
- Tentative model

Phase III Validation

- Testing of model – performance testing

Phase IV – Application – policy implications

The Controller's matrix (5 x 16) of elasticities, fares, and derived marginal revenues cannot be relied upon for a major and very expensive policy change that could potentially bankrupt the taxi industry. This approach cannot be accepted without a thorough investigation, one focused specifically on the San Francisco market and regulatory environment. In Taxi I, developed for the San Francisco Taxi Association in 2005, the parameters of such a study were carefully described. The computed studies showing estimated elasticities from the Controller's January 16, 2006 presentation are from disparate parts of the world and are not from current time periods.

Presenting a table of static marginal revenues based on spurious elasticities and an array of price increases, while ignoring the real-world dynamic of inter-temporal substitutions, cannot be used to subject the San Francisco taxi industry to added costs of the magnitude that city planners are presently envisioning.

C. Need for Regulatory Reform – An Example of Different Fare Components Escalating at Different Rates

In proposing the flag-drop add-on for a universal health care plan, to be collected through an increase in gate fees, taxi companies believe it is imperative that City-regulators commit to non-discretionary, transparent, annual rate (fare) reviews. In dedicating a component of the fare (and by definition) the gate fee to universal health coverage, the regulators must recognize that health care costs have historically increased significantly faster than the consumer price index (CPI), the index theoretically being used as the regulatory measure for adjusting all taxi industry costs. The companies require a systematic revenue-requirement approach to setting rates, whereby the goal is to minimize fares while facilitating reasonable cost recovery, a fair return on equity capital and a prompt response mechanism for unexpected economic changes, such as the recent gasoline price hikes.

Transparency and systematization in a regulatory system have a positive externality in the capital markets by lowering risk. A lower risk translates into a lower cost of capital. The current disjointed regulatory system is an unnecessary adjunct that translates into higher capital costs, costs that must be passed along to the ridership and cut into the net revenues of the drivers, medallion holders and companies. This is a broader subject for another agenda.

As noted, health care insurance costs have historically increased faster than most other consumer items. A big concern for drivers, medallion holders and companies is that regulatory lag, which has plagued the taxi industry, will continue unless there is a City commitment to implementing regulatory reforms. As discussed above, the universal health coverage for drivers will be funded by a separate increase on the flag drop. This increase will then be collected by an approximate add-on of $3.75 per gate fee. This would mean that the current flag drop will increase from $3.10 to $3.35 and the current gate will increase from $91.50 to $95.25.

Again, the failure to address regulatory reform has negatively impacted the financial stability of the taxi companies. Costs have increased, the gate has remained static and ambiguously written legislation has opened the door for confiscatory type lawsuits that imperil this all important sector of the overall San Francisco economy.

Tables 5 and 6 shows the flag drop and gate divided into two separate components for regulatory escalation. Two different escalation scenarios are presented, and two separate escalation indices were created: (1) a CPI index assuming a 3 and 2.5 percent increase and (2) a health insurance index assuming 12 and 18 percent increases. To find a forecast for both total flag-drop and gate fees in future years, each health and non-health component of the flag-drop and gate was increased in accordance with the applicable inflationary index. In signing off on a universal health plan, the companies would need assurances that, on an annual basis, these separate components will be adjusted at their actual inflationary rates, legislation will be written such that the companies cannot be targeted for opportunistic lawsuits, regulators will commit to a revenue-requirement approach to setting tariffs and they will immediately responded to external economic anomalies that negatively impact the industry.

Table 5
(Escalation Scenario 1)
Dichotomizing the Components of the Flag and Gate for Different Escalation Rates

	CPI – Future	Hlth – Future	Non		Total Gate	Flag Drop	Flag-Drop	Total Flag
	0.03	0.12	Health Gate	Gate-Health	Hlth+Reg	Reg	Health	Drop
Year	3.00%	12.00%	$91.50	3.75	$95.25	$3.10	$0.25	$3.35
2007	1.00	1.00	$91.50	$3.75	$95.25	$3.10	$0.25	$3.35
2008	1.03	1.12	94.25	4.20	98.45	$3.19	$0.28	$3.47
2009	1.06	1.25	97.07	4.70	101.78	$3.29	$0.31	$3.60
2010	1.09	1.40	99.98	5.27	105.25	$3.39	$0.35	$3.74
2011	1.13	1.57	102.98	5.90	108.88	$3.49	$0.39	$3.88
2012	1.16	1.76	106.07	6.61	112.68	$3.59	$0.44	$4.03
2013	1.19	1.97	109.26	7.40	116.66	$3.70	$0.49	$4.20
2014	1.23	2.21	112.53	8.29	120.82	$3.81	$0.55	$4.37
2015	1.27	2.48	115.91	9.28	125.19	$3.93	$0.62	$4.55
2016	1.30	2.77	119.39	10.40	129.79	$4.04	$0.69	$4.74

Table 6
(Escalation Scenario 2)
Dichotomizing the Components of the Flag and Gate for Different Escalation Rates

	CPI – Future	Hlth – Future	Non		Total Gate	Flag Drop	Flag-Drop	Total Flag
	0.03	0.18	Health Gate	Gate-Health	Hlth+Reg	Reg	Health	Drop
Year	3.00%	12.00%	$91.50	3.75	$95.25	$3.10	$0.25	$3.35
2007	1.00	1.00	$91.50	$3.75	$95.25	$3.10	$0.25	$3.35
2008	1.03	1.18	93.79	4.43	98.21	$3.18	$0.30	$3.47
2009	1.05	1.39	96.13	5.22	101.35	$3.26	$0.35	$3.61
2010	1.08	1.64	98.54	6.16	104.70	$3.34	$0.41	$3.75
2011	1.10	1.94	101.00	7.27	108.27	$3.42	$0.48	$3.91
2012	1.13	2.29	103.52	8.58	112.10	$3.51	$0.57	$4.08
2013	1.16	2.70	106.11	10.12	116.24	$3.60	$0.67	$4.27
2014	1.19	3.19	108.76	11.95	120.71	$3.68	$0.80	$4.48
2015	1.22	3.76	111.48	14.10	125.58	$3.78	$0.94	$4.72
2016	1.25	4.44	114.27	16.63	130.90	$3.87	$1.11	$4.98

The two above scenarios (Tables 5 and 6) are just that – scenarios. There are a near-infinite number of such scenarios. Moreover, there are the other components of the fare calculation. These elements are also vital to the taxi-community; but for this agenda item, the discussion herein has been limited to the two components (flag drop and gate) upon which the impact of this surcharge falls.

The impact appears to fall on ridership. The observed elasticities appear to support this assumption. The companies will closely monitor incident (where the tax falls) and impact (who pays).

D. Revenue Requirements Approach to Tariffs

The basic revenue requirement approach used by orthodox regulatory entities such as the California Public Utilities Commission (CPUC) uses an algebraic construct similar to:

$$R = O + D + T + rB$$

Where:
B = Rate base (V-d)
V = Rate base valuation (historical costs)
d = Accumulated depreciation
R = Revenue requirements
O = Operation and maintenance expenses
D = Annual depreciation charges
T = Taxes
r = Permitted rate of return on capital

Fares are developed to cover allowable costs. The entire process is transparent and predictable. All stakeholder-input is entertained. The CPUC will set general rates for a period of years, based on input from companies, the public, the Division of Ratepayer Advocates and other stakeholders' concerns. Interim annual adjustments are generally be accomplished by tying fares to an appropriate index (CPI, health care costs, gasoline, etc.).

Formalizing the setting of fares and conditions of service in the San Francisco taxi industry would go a long way to ensuring industry viability and stopping opportunistic law suits.

E. Auction

The UC Goldman School study provided an immediate solution to funding a broad-based health care plan for all San Francisco taxi drivers by recommending a taxi-medallion auction. The industry would benefit because cabs would be issued to those who place the highest marginal value in acquiring a medallion. The City would benefit because it could retain all the original net auction revenues and thereafter charge a fee for each transfer of an already issued medallion. The medallions will remain the property of the City and subject to all applicable Taxi Commission regulations.

The companies are aware of and understand the equity issues that would surround changing a queue system to an auction. Some form of a "Coasian exchange" could be adopted. As long as the parties can readily make and enforce contracts (queue rights with horizons being discounted as in any market transaction) in their mutual interest, an efficient economic outcome will be possible to buyers, sellers and the City. The City needs a clear definition of who has a right to do what and the market mechanism will take care of the problem. This issue is a little complex for this agenda item, but when City budgets is strained, and worthy causes like universal health plans are held up by limited funding from current sources, all avenues, especially one suggested by such a prestigious institute as the UC Goldman School, must be investigated.

The mathematics of dedicating net proceeds from auctions and transfers (assuming transfer fees in the order of 10 to 15 percent) to a universal health fund are simple. Under this approach, plans costing $11 MM and up are possible. The Coasian solution, with or without terminating the queue system, offers a market solution to the equity issue.