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March 28, 2016

Rosemary Chiavetta, Secretary
Pennsylvania Public Utility Commission
PO Box 3265
Harrisburg, PA 17105-3265

RE: COMMENTS TO PROPOSED RULEMAKING
52 Pa. Code Chapters 1, 3, 5, 23 and 29
Docket No. L-2015-2507592
Our File No.: 04527

Dear Ms. Chiavetta:

The Yellow Cab Company of Pittsburgh, Checker Cab, Ray Ray Taxi, and Pittsburgh City Cabs (hereinafter YC) by and through their attorneys Ray F. Middleman and Malone Middleman, P.C. sets forth the following comments to the Proposed Rulemaking and the Regulatory Analysis Form submitted by the PUC in support of its Proposal:

INTRODUCTION

In the past two years, the motor carrier passenger carrier industry has undergone significant change throughout the Nation and, certainly, in the Commonwealth of Pennsylvania. We have seen the proliferation of TNC companies such as Uber and Lyft significantly impact the transportation marketplace. They have developed a new dispatch technology and an innovative means of using private vehicles for public transportation. In response to this new form of public transportation, the Pennsylvania Public Utility Commission was one of the first governmental agencies in the country to create parameters for this category of transportation service when it approved of YC's "Yellow Z" TNC experimental service application. It remains a viable blueprint for any TNC service application in any part of the United States. All traditional taxi carriers have had to deal with a significant change in the way taxi call and demand service is operated and conducted because of changes in dispatch technology and because of the advent of TNC service.

In the past 5 years, as part of significant changes to the motor carrier industry, the PUC has also deregulated entry into both the moving company and limousine types of carrier service. The need for rate/tariff approval has been done away with for both of these types of service and functional deregulation has occurred.

We have seen the PUC create vehicle age and mileage reclassification for taxi service. This caused YC and other similarly situated operators significant financial strain in the face of meeting the new criteria. Vehicles with higher mileage, but regularly serviced, could no longer be used regardless of their age. Many carriers had to restructure fleets and major investment had to be made in newer low mileage vehicles. This investment was made by YC and other carriers because they were required to do so and because they knew that they could rely on the fact that the industry was regulated and their investment would eventually be recouped over several years of operation.

GPS and Mobile Data Transmitters have been installed in all YC taxis at significant expense. These upgrades were necessitated by the general advances made to the technology that services the industry. Efficiency in dispatch was further enhanced by the use of smartphone "Apps" which are used by taxi and TNC operators as well as consumers. Now, the use of smartphones and tablets has nearly replaced the telephone and taxi meter as the primary source of call and demand service solicitation, dispatch and payment.

To try and bring motor carriers of passengers, into the 21st century – and to deal with new technologies and types of service – the Pennsylvania Legislature has proposed various pieces of legislation, Senate Bill 984 being most prominent. Senate Bill 984 addresses many of the issues with which the PUC is presently struggling with respect to the operation and regulation of TNC service – as well as taxi and limousine service. The complexities of integrating these different types of service so that the playing field is fundamentally level for all passenger transportation providers is a challenging and difficult task.

For YC, there is further complexity to be considered by Allegheny County's unique geographic and demographic area. The greater Pittsburgh area is a unique transportation marketplace because of the rivers and the concentrated central business district. YC is the largest single operator outside of Philadelphia and has had over 100 years of service and investment in the community.

Against this background, the PUC now seeks to introduce regulatory change effectively deregulating entry into the taxi marketplace while retaining control over rate making for those service providers. Not only is this a significant philosophical leap for a regulatory agency to make, it appears that

there are a myriad of issues, both large and small, which impact the deregulation of the taxi industry in the Commonwealth.

YC opposes deregulation. As set forth in the studies attached hereto for the Commission's reference, deregulation has caused many problems for both the carriers and the consumers in every jurisdiction in which it has been attempted in the past. The results of deregulation are predictable and are deleterious to both carriers and consumers. Existing carriers, like YC, face financial loss; loss of control over the quality of service they can deliver; loss of price control; and loss of a 100 year investment.

Nevertheless, without waiving its position against deregulation, YC respectfully offers the following comments in an effort to constructively address the proposed regulatory changes so that – if they are to be made – they are perhaps more effective.

1. Regulatory Analysis Form, Section 7 and the Proposed Rulemaking Order

With specific reference to the Regulatory Analysis Form, Section 7 and the Proposed Rulemaking Order, YC suggests that there needs to be guidance and definitive criteria outlining exactly what constitutes "financial" and "technical" fitness on the part of a given applicant. In fact, if the PUC defined "need" and "demand" criteria in its regulatory scheme, it is likely that all of those criteria could be useful to the Commission and, importantly, would leave <u>less</u> basis for protest, not more. If existing carriers know that the applicant clearly meets the stated criteria, they are less likely to waste money protesting an obviously lost cause. For example, if "need" and "demand" are determined based upon a reliable industry standard of population use, then "need" or "demand" can be set based upon a total number of taxis for a given demographic area – i.e., 1 taxi per every 1,200 people in a given area. In that way, if the demographics support additional taxis, then there is a *prima facie* finding of "need" or "demand" and the potential Protestant knows that there is no hope of success <u>and</u> that there is a proven basis for a finding in favor of new carriers.

If the PUC removes "need" and "demand" as criteria, then there must be more specificity and emphasis on the fitness qualifications in light of the elimination of the "need" and "demand" requirements. The absence of specific criteria will cause protests to continue because there will be no way to predict what the PUC will do in response to a given application for operating authority. It is the vagueness of the carrier qualifications that leaves the door open for contest. For example, if the PUC defines "financial and technical fitness" in Counties of the Second Class as requiring:

a. A minimum fleet size of 25 vehicles;

b. A dispatch system using "App", Mobile Data Transmission and/or other digital or radio technology;

c. $100,000 of assets over liabilities;

d. Driver safety training;

e. Vehicle maintenance and safety program;

f. Driver qualification program; and

g. Insurance as required.

then there will be fewer protests because existing carriers will know that anyone meeting those criteria is qualified and a legitimate competitor.

(In areas outside Counties of the Second Class, it is suggested that if the applicant has less than 25 vehicles, they must affiliate or contract with a carrier or entity that does have a qualified dispatch system. The point being to provide smaller carriers more than just the que lines at airports and hotels).

Minimum fleet size, for example, assures less consumer confusion which often comes with multiple 1 and 2 vehicle carriers. Deciding between 5 carriers with 25 taxis is easier than 50 carriers with 1 or 2 taxis. It also allows the PUC to identify the carriers and regulate their safe operations more easily. In the larger metropolitan areas it is important to have substantial carriers who are financially and technically able to service the entire area and not short lived 1 or 2 car operators who cannot maintain the necessary quality and quantity of service..

Further, it concerns the YC Company that the PUC intends to issue "guidance" via a Policy Statement after the regulatory changes are made. This allows the potential for the PUC to overreach into other areas of transportation regulation without specifically allowing for industry input. All industry "guidance" should be detailed in the regulatory process. Policy Statements adopted by the current Commission may or may not reflect the direction that future Commissions may wish to pursue.

Finally, the Commission seeks to functionally deregulate entry into the marketplace with free competition setting the price – but in contradictory fashion requires that there be PUC tariff rate change approval. The PUC should not have functionally open entry into the marketplace and regulate price at the same time. This runs contrary to the stated purpose of the deregulation proposal and the PUC's mantra of letting the marketplace determine the price and the carriers it wishes to choose.

If the PUC does intend to regulate price, YC would suggest a tariff/rate system that has an approved range of permissible tariff rates established annually by the PUC, i.e. a low of $.80 per mile and a high of $5.00 per mile. Any carrier could change its posted rates (surge or price cut) at its discretion,

without PUC involvement, as long as the change is within the stated range and the passengers are advised of the rate when they engage the taxi. This would also contemplate that consumer friendly "discounts" could be used within annual PUC tariff parameters. As long as the carriers' rates are within the pre-approved annual floor/ceiling, then there would be no need for the certificated carrier to seek PUC approval. Perhaps all that would be needed is communication to the PUC notifying them of the change. Issues of standard back mile charges; weekend rates; "capped" surge pricing; notification to PUC and public of rate changes could all be covered by this annual PUC rate setting.

2. Regulatory Analysis Form, Section 10, and the Proposed Rulemaking Order

There is no indication as to how many of the 70 protests referenced by the PUC related to the "financial and technical fitness" of the applicants as well as "need" or "demand" for the service.

YC suggests to the PUC that there would be no savings in legal fees by deleting the "need" and "demand" criteria because applications for operating authority can, and will, be protested on the basis of "technical and/or financial fitness". What study is the alleged savings predicated upon? We see no empirical analysis and no basis for determining that the number of protests will drop to zero.

It is clear that, in the application process, the PUC presently makes the determination of "need" or "demand" without empirical data, studies or analysis. It can, therefore, outright dismiss protests or alter/expedite its administrative process to rule on applications. It would appear that the current administrative process of the PUC is totally discretionary and not based upon factual determinations and criteria which would help to avoid market saturation – which directly affects safety and service to the public. In every deregulated marketplace, price, quality of service, safety, reliability and innovation have been negatively impacted. (See attached studies).

There is nothing in the proposed regulation which defines or explains the criteria which constitute "financial" or "technical" fitness. Further, there appears to be no empirical basis for the determination that an average of $25,000 is spent by each applicant on legal fees for a protested application. It is also disputed that the "primary challenge lodged against an applicant is whether there is a public demand or need for the service". In point of fact, in almost every instance, the primary basis for protest by YC has been on the basis of technical and financial fitness. These criteria are almost always challenged in addition to the public demand or need. To be more succinct, YC has garnered that there is no empirical basis or definitive criteria upon which "need" or "demand" is determined by the PUC during application proceedings. Despite protestants presenting studies and expert witnesses, the Commission has declined to set a pre-determined basis upon which any "need" or "demand" protest can be successful. In over 30

years, this Commentator has not seen a single applicant denied operating rights on the basis of lack of "need" or "demand", nor has there been a case holding or opinion where guidance was given in defining those criteria. While "need" and "demand" objections are generally included in most protests, the focus of protests in recent years has been on fitness issues. The proposition that the proposed regulation is needed to reduce protests is false. Certificated carriers will not reduce the number of protests they file, mainly because they already considers "need" and "demand" protests to be relatively fruitless and only consider the fitness criteria to have any chance of success. At least with fitness arguments, if an applicant has no money or cars – obvious and discernable necessities to operate – then a protest can be successful.

The alleged streamlining of ratemaking by going to the "short form" procedure is also going to create challenges. If there is going to be open entry into the market there cannot be ratemaking. Ratemaking and tariff applications are contrary to the very open market pricing that the PUC proposes as the economic basis and justification for its regulatory change.

Further, YC sees no cost reduction to the carriers. They still have to apply; they still have to provide financial information; they still have to justify the rate change. Plus, it all takes time. It is fundamentally unfair to the carriers to have open entry into the marketplace and then make the carriers justify their rate changes – that is <u>not</u> "the marketplace setting the price". It is also a competitive disconnect to allow TNC carriers and limousines to "surge price" and change rates at their discretion, but to require taxi carriers to have to go through a process of application, justification and approval that can take months. Open entry requires that the PUC also do away with no tariff justification, just like TNC and limousine operators. As stated above in #1, an annual tariff range, with loose parameters, could solve the problem and allow taxi carriers to compete within a price range that will not be destructive to the carriers or financially burdensome to the public.

The removal of territorial restrictions also, logically, requires that carriers with statewide authority must be able to refuse fares. If a small carrier with 2 vehicles receives a call to provide service hundreds of miles away, there needs to be a mechanism of refusal and/or the grant of "back miles" and expenses to be charged for such trips. The PUC should contemplate a provision that makes it clear that taxis have the right to refuse trips. If a carrier refuses a trip which is hundreds of miles away, such refusal should not affect the technical fitness of that carrier. There is no carrier in the Commonwealth, at this time, that can service all areas equally.

It might be better to allow carriers to apply for operating rights for specific geographic areas of their choosing rather than receiving a blanket approval for the entire Commonwealth. If a certificated

carrier wishes to expand or contract its area of operation, it can simply notify the PUC by letter of its intention and, if the carrier is in good standing, the new geographic authority is approved as of the notification. It would be easier for the Bureau of Enforcement to supervise service in specific areas rather than on a Commonwealth wide basis.

This process would reduce the issues related to situations where a carrier has to deny service (a Code violation) in parts of the Commonwealth it could never serve. It also reduces tariff charges for "back miles" and keeps carriers focused on the areas they have requested to serve. There are going to be 1 and 2 taxi operators who can only cover a limited area – they should not be saddled with potential Code violations for not servicing a larger area.

3. Regulatory Analysis Form Section 12, and the Proposed Rulemaking Order

The cited venues do not reflect situations where there has been statewide deregulation. There may be some areas of short lived deregulation of the taxi industry which are municipal or city based. The PUC fails to provide a comparison between Pennsylvania and the states cited. Further, the PUC forgoes listing the jurisdictions where deregulation has been attempted and met with disastrous results – which is every state and venue where it has been attempted. Numerous states have deregulated only to re-regulate when deregulation fails. The empirical studies considering deregulation in the taxi industry are attached hereto and reflect in critical detail the failings of deregulation.

4. Regulatory Analysis Form Section 13, and the Proposed Rulemaking Order

The contention that the proposed regulation will not affect other state agencies is inaccurate. The deregulation of the passenger carrier industry will affect ACCESS; Medicare/Medicaid; PennDOT; DPW and other agencies which depend on predictable and regulated rate transportation. To allow entry deregulation would also require rate deregulation.

5. Regulatory Analysis Form Section 14, and the Proposed Rulemaking Order

The PUC proposes a radical change to the legislative and regulatory scheme which has been in place for over 50 years. YC and the other 1,127 carriers have invested millions of dollars in building their operating infrastructure on the framework provided by the existing regulations of the PUC.

It would seem that, at a minimum, there should be hearings; public meetings; economic impact studies; committee meetings; and/or working groups convened to examine the issues of competitiveness and consumer choice in the transportation marketplace. There is also no consideration of the impact of TNC carriers in the marketplace and the resultant changes to consumer choice.

6. Regulatory Analysis Form Section 15, and the Proposed Rulemaking Order

Deregulation has caused worse service; safety issues; higher pricing; and fewer competitors. This has been demonstrated in academic studies and papers. See attached:

a. Analysis of Taxicabs Deregulation and Re-Regulation (Price Waterhouse Office of Government Services, Washington DC (1993);

b. Transportation Law Journal, University of Denver College of Law: Taxi Industry Regulation, Deregulation and Reregulation: The Paradox of Market Failure (1996); and

c. Review of Taxicab Regulatory Changes in Cincinnati, Indianapolis and Seattle, North Carolina State University, Institute for Transportation Research and Education (1998).

Deregulation has had the exact opposite impact than that sought by the PUC in its Proposed Rulemaking. The studies referenced above also detail the impact that deregulation would have on a group not polled by the PUC – the public. YC does over 1.3 million trips a year. Those riders would certainly be negatively affected by deregulation. There should be critical examination of the impact of deregulation on the consumer.

7. Regulatory Analysis Form Section 16, and the Proposed Rulemaking Order

While the PUC acknowledges that the current 1,127 passenger carriers would be affected (as would future carriers), the Commission fails to address the interrelationship that these regulations have with TNC operators. The Proposed Regulations would not have any impact with respect to TNC operators who already have a separate and different playing field. The Proposed Regulations do not protect the existing taxi carriers from TNC carriers and, in fact, create a further disparity between taxi and TNC carriers who both serve the same population segment.

8. Regulatory Analysis Form Sections 17 and 18, and the Proposed Rulemaking Order

Neither of the responses to these two questions are seemingly based upon facts or industry evaluation/input. As per #5 above, there have been no forums for public input; no working groups; no studies; no empirical data; no evaluation of TNC impact; and no investigation.

The PUC makes broad statements that open market entry spurs competitiveness, but then opts to control pricing – which will inhibit the operators' ability to react to the marketplace and deter competition. Further, YC has suffered 3-4 month delays on the approval of "short form" tariff requests. That procedure is not a panacea for tariff change. TNCs and limousines can surge price but taxis cannot? Not analyzing the TNC role in passenger carrier operations specifically related to the Proposed Regulations is a problem to the extent that there needs to be some uniformity among those carrier groups

serving the same consumers. An unequal playing field will create problems and issues for the public and the carriers.

Enforcement is also a consideration for the PUC. The Bureau of Enforcement has been stretched trying to regulate the operations of existing carriers in Western Pennsylvania. What will happen when hundreds of new drivers/carriers begin operating with PUC approval. YC believes that the Bureau of Enforcement does a fine job but questions the impact of hundreds of new carriers on their enforcement resources.

The cost of enforcing operational regulations on hundreds of undercapitalized one and two car taxi operations will be enormous. There will be problems identifying carriers that are certificated versus jitney carriers. YC believes that the Proposed Regulations will increase the costs of: (1) enforcement; (2) administrative processing of applications; (3) administrative processing of tariff changes; and (4) increased costs for protests as more carriers have greater interests to protect.

9. Regulatory Analysis Form Section 19, and the Proposed Rulemaking Order

YC believes that the costs to the "regulated community" will increase as a result of the following:

a. Increased costs for processing more applications;

b. Increased costs for processing more tariff changes;

c. Increased costs for enforcement of additional small operators who are undercapitalized and not adequately supervised. More carriers equal more violations, not fewer;

d. Increased costs of dealing with protests as more carriers try to protect their turf. Protests on the basis of lack of fitness will proliferate and the demise of need/demand criteria will have no impact at all on the number of protests filed;

e. More competition equals more conflict over the same number of fares. This leads to more violations of the PUC regulations; and

f. Market saturation and diminished service have a cost. The PUC has done no economic evaluation of this problem.

The "value" of the certificate of public convenience is less important than the good will value of the transportation provider. Deregulation will cause all taxi companies to spend less on their vehicles and vehicle maintenance. The price per trip will go up, not down. Service will become worse, not better. The attached studies support and affirm these conclusions.

10. Regulatory Analysis Form Section 21, and the Proposed Rulemaking Order

The PUC admits that the specific amount of alleged savings cannot be calculated, yet they attempt to estimate the reasonable administrative costs of doing their job. If we are to believe that there would be over $500,000 in savings to the PUC as a result of taxi deregulation, then one would expect a reduction in both staff and regulatory assessments for the industry – neither of which are referenced by the PUC in their answer to #21.

The PUC's assertion regarding the compliance of unlicensed carriers once they are caught is pure speculation. There is no empirical data supporting that proposition and, in fact, in Pittsburgh there have been many jitney operators using the City streets for years.

Noteworthy is that the "need" or "demand" criteria for limousine and moving companies has been removed. No data is presented as to whether the number of limousine protests has increased or decreased since that time.

11. Regulatory Analysis Form Section 22, and the Proposed Rulemaking Order

Even with the "streamlined" regulation, there must be forms for application or tariff changes or the like.

12. Regulatory Analysis Form Section 23 and 23(a), and the Proposed Rulemaking Order

The chart(s) do not show the estimated costs to the existing industry, just the alleged "savings" which are derived without support. There is no evidentiary support to the PUC's numbers and there has been no input from the 1,127 carriers.

13. Regulatory Analysis Form Section 24, and the Proposed Rulemaking Order

The PUC has not incorporated data from the academic studies which demonstrate a significant negative impact for the consumer and for the carriers via deregulation.

The Commission also does not address the issue of "stranded costs" – the loss of investment by the carriers who have built their businesses around 50 years of prior regulatory control. This disregard for existing carriers is disconcerting in its lack of reflection and study. In the deregulation of other industries such as gas and electric, provisions were made for this lost investment. No consideration is made for reduced assessments or other accommodations to carriers who have built their business on the basis of regulated protection.

No alternatives are discussed regarding other means of bringing competition to the marketplace. The entire deregulation move by the PUC seems to be a follow through on a plan that was put into effect

several years ago to deregulate the major categories of service providers. First, movers; then limousine; now passenger carriers/taxis. There ought to be greater support and justification for these changes.

It must be remembered that taxi service is not the same as movers and limousine carriers in one very critical way – service by taxis is provided on a localized demand basis. Movers and limousine users have the opportunity to shop for the best providers at the best price. Taxi users come out of the airport, hotel or office building and take the next taxi in line. They do not shop and they do not compare – they do not have the time and/or ability. To blindly treat movers, limousine and taxis as the same types of service for deregulation purposes is a disservice to the consumer and the taxi carriers.

14. Regulatory Analysis Form Section 25, and the Proposed Rulemaking Order

One thousand one-hundred twenty-seven (1,127) carriers have complied with the "outdated monopolistic application process". YC does not know what "open market" the PUC is referring to. In this Commentator's experience, it is unusual that an application for operating authority is denied. Without strictly enforced criteria, it is generally left to the Administrative Law Judges to determine if an applicant has financial and technical fitness or whether need exists. Without guidance, the Judges surely favor the applicants and grant almost all applications.

The truth is that better service will come from better applicants not more applicants. Incentivizing applicants and protecting their investment makes more sense than throwing the door open to every person with a credit card and a vehicle.

Further, when the PUC opened the door to limousine market entry, it also eliminated rate making for limousines. Why are the other passenger carriers held to a different standard? The "streamlined" process still requires financial justification and the approval of the PUC administration.

15. Regulatory Analysis Form Section 26, and the Proposed Rulemaking Order

Why are no other provisions or alternative mentioned?

16. Regulatory Analysis Form Section 27, and the Proposed Rulemaking Order

The fact that limousine tariffs can be changed by the carrier without approval by the PUC leaves other passenger carriers in a less advantageous situation. TNC carriers can surge price at their whim without prior PUC approval. This disparity is anti-competitive and certainly does not benefit the existing passenger carriers who are subject to the alleged "streamlined" tariff change procedure.

17. Regulatory Analysis Form Section 28, and the Proposed Rulemaking Order

There should be significant data to support why deregulation is beneficial to either the carriers or the consumer. That there are no studies and no data presented that is helpful to the PUC – especially in light of the contrary studies.

18. Regulatory Analysis Form Section 29, and the Proposed Rulemaking Order

Clearly the regulation needs to be re-written. The proposed timeline is not realistic.

ADDITIONAL COMMENT

As general comment to the deregulation set forth in the Proposed Rulemaking docketed by the Commission at L-2015-2507592, YC believes that the proposal should be withdrawn for several reasons: (1) the proposed regulation strands 1,127 existing certificated carriers who have built their businesses based upon a regulated and protected business model. They will all suffer significant harm by rampant and unrestrained competition after over fifty (50) years of regulated operations; (2) the consumer will suffer. In every jurisdiction where taxi deregulation has occurred, the consumer has suffered with poor service, decrepit fleets of taxis and higher prices. Without enforcement and a determination of need, new entrants into the market place will gravitate to the airport, hotels and businesses where there is a steady stream of customers already being serviced. The studies show that the residential and non-business users will not receive service; (3) the changes suggested by the PUC are contrary to the legislative authority existent at present and are an attempt to "regulate" rather than "legislate" change; and (4) the proposed regulations are simply incapable of being understood or implemented in a meaningful way.

1. Changing the existing regulated scheme

One thousand one-hundred twenty-seven (1,127) carriers have applied for and received operating authority in the Commonwealth. In the last 30 years, almost no applicants in the Western Pennsylvania area have been denied taxi authority, whether the application was protested or not.

These existing carriers have invested millions of dollars in a system that arguably is intended to protect carriers from rogue operators unlawfully invading their operating authority and undercutting their tariff rates and usurping paying passengers. Regulated service also protects the consumer from unsafe and unscrupulous operators.

The 1,127 certificated carriers benefit from a defined legislatively authorized regulatory scheme implemented through the PUC which has for more than 50 years operated without much controversy or challenge from the public or the carriers. Fleets of taxis – whether 350 or 3 – have been built and maintained in accordance with rules that have kept the public moving. Investment in taxi operations has

been facilitated because the carriers know that that investment is protected. GPS based mobile data transmitters and technical improvements have cost taxi operators hundreds of thousands of dollars; the purchase of comfortable late model taxis has ensured safe, consumer friendly operations with assurance that vehicle investment will be returned; use of employee mechanics with OEM spare parts and good tires has been an investment that has paid dividends in better vehicle operations; background checks and driver training and discipline has been a costly but advantageous expense to maintain quality service.

These elements of operation are the upside to regulated public taxi service. Unrestricted entry will upset the economic balance which the existing 1,127 carriers have earned and paid for. They lose – and the consumer loses. Carriers will not be able to invest in their business because they will be fighting unrestrained competition. The academic studies referenced herein and attached hereto demonstrate that deregulation has a negative effect on consumer comfort, service and safety.

An influx of carriers would have the effect of dissipating the rider base upon which YC and other carriers have based their investments. This makes the likelihood of recouping those investments in the coming years very remote.

2. Consumers Suffer

In every instance where deregulation has been effectuated in the taxi industry, consumers have suffered. As reflected in the Price Waterhouse study (attached hereto):

- Although the supply of taxi services expanded dramatically, only marginal service improvements were experienced by consumers . . . because most new entrants were independent operators and small fleet owners with limited capability to serve the telephone market, most new service was concentrated at already well-served locations.
- Prices rose in every instance and overall by 29% in the year following deregulation. The reasons appeared to be that fare increases prior to deregulation had consistently lagged cost increases. Veteran operators increase fares at the first opportunity. Also, new entrants generally charged higher fares than veteran operators because the cabstand markets on which these new operators focused are generally price insensitive and price shopping in queues is discouraged.
- Service quality declined. Trip refusals, a decline in vehicle age and condition and aggressive passenger solicitation associated with an over-supply of taxis are characteristic of a worsening in service quality following deregulation.

Overall, the consumer loses when deregulation occurs. The empirical data and studies demonstrate that this is the case. The PUC has no empirical data or evidence to the contrary which supports its move to deregulate.

3. The PUC's Proposed Rulemaking essentially results in a co-opting of what appears to be a legislative function. The Proposed Rulemaking is inconsistent with the PUC's enabling statute which requires that there be a process for temporary and emergency operating authority under 66 Pa.C.S.A. §1103, 2509. This is specifically done away with under the Proposed Rulemaking. The removal of 52 Pa. Code §3.83 is invalid as it is contrary to the legislature's directive.

In eliminating the "need" and "demand" standard and in curtailing possibility of protests by existing carriers, the PUC has changed the basic concept of regulated passenger carrier transportation contemplated by the Legislature. The attempt to legislate via regulatory modification flies in the face of the necessary process of carrier and consumer input.

4. The proposed changes to the PUC regulations are, simply, not capable of attaining the goal which the PUC seeks. While taking away the requirement to prove "need" or "demand", the PUC offers no explanation for why the proof of "need" or "demand" was a concept that harmed either the carriers or the consumer. In the last 30 years of practice, I have not once seen a definition of what specifically constitutes "need" or "demand". Is it 1 witness or 10 witnesses testifying that they would use the service? Is "need" or "demand" determined by empirical investigation and studies? The use of experts has never carried the day. Having never defined the criteria, the PUC now seeks to remove it entirely – on the unsupported contention that it will cause all protests to cease. This, of course, is a fallacy. Protests can still be filed on the basis of "financial or technical fitness". There will likely be the same number of protests – unless the PUC defines what specifically determines or constitutes "financial" and "technical" fitness so as to preempt the need to protest.

Had the PUC initially defined what specifically constitutes "need" or "demand", there would have been fewer protests. If it defines "fitness" there will be fewer protests. The Proposed Rulemaking simply does not reduce the possibility of protests. Protests will still be filed and hearings held.

Further, for existing carriers, the allegedly streamlined process of changing tariffs is neither faster nor less invasive. Financial justification must still be given; financial records provided; and analysis made for all tariff changes. The suggested procedure is not the "free market pricing" that the PUC seeks. Limousines and TNC carriers do not operate with these unreasonable constraints, why should other passenger carriers? No justification is given by the PUC for holding taxi operators to a different standard.

Unlimited geographic authority creates more problems than it attempts to solve. No carrier can service the entire Commonwealth. Are they to be penalized for not answering calls 200 miles away? Or 20 miles away? Or 2 miles away? Current regulations provide that . . . "[a] driver of a call or demand vehicle shall, at all times when on duty and not engaged, furnish trip service on demand to an orderly person for lawful purposes." 52 Pa. Code §29.313(a). The PUC needs to fulfill its mandate and regulate passenger carriers.

There will be, presumably, significant numbers of new carriers with statewide authority. The PUC has less than 6 enforcement officers in Western Pennsylvania (at last count). They cannot be expected to enforce PUC regulations as to existing carriers and, potentially, hundreds more. This issue is not addressed by the Proposed Rulemaking. The cost of adding adequate enforcement resources alone makes the Proposed Rulemaking cumbersome.

CONCLUSION

There must be integration of this Proposed Rulemaking with the pending legislation found in Senate Bill 984. TNC, taxi and limousine regulations need rewritten globally to encompass the significant technological and operational changes which have recently occurred. Piecemeal regulation will create more problems than it will solve.

It is not efficient to have Senate Bill 984 working at cross purposes with the PUC's Proposed Rulemaking. YC suggests that the Proposed Rulemaking be reviewed in light of Senate Bill 984 and the comments herein to effectuate a course of legislative and regulatory change that both pursue the same goals and objectives.

Respectfully submitted,

Ray F. Middleman

RFM/kjb
Enclosures

Analysis of Taxicab Deregulation & Re-Regulation

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8 November, 1993

Mr. Alfred LaGasse
Executive Vice President
International Taxicab Foundation
3849 Farragut Avenue
Kensington, MD 20895

Dear Mr. LaGasse:

We are pleased to submit this final report documenting our findings from an analysis of taxicab regulation and re-regulation that we performed on behalf of the International Taxicab Foundation.

Our findings rest on research methods described in Section 1 of the report, which rely on three data sources: (i) past case studies of taxi deregulation, sponsored by the U.S. Department of Transportation; (ii) taxi fare and license data for individual cities, made available by the International Taxicab and Livery Association; and (iii) telephone surveys of public officials in cities that implemented taxicab deregulation, conducted by Price Waterhouse. Price Waterhouse has not independently audited data from the first two sources, although we have no reason to believe the data have any characteristics that would invalidate our findings.

Our report concludes that the effects of taxi deregulation have ranged from benign to adverse, depending on local markets and conditions. This is a departure from the experience with deregulation in other industries and is influenced by taxi market imperfections that reduce or remove incentives for price and service quality competition. Consequently, we found that most cities that had fully deregulated taxi service have since reverted to some form of control over market entry.

We very much appreciate the assistance provided by you and other members of ITF during this engagement.

Very truly yours,

Price Waterhouse

Analysis of Taxicab Deregulation and Re-Regulation in US Cities

TABLE OF CONTENTS

EXECUTIVE SUMMARY

Taxicab regulation and deregulation refer to opposite ends of a spectrum of government control over taxi services. *Regulation* typically implies government determination of service supply (by limiting taxi licenses), or prices (by setting fixed or maximum fares), or both. *Deregulation*, in contrast, typically implies an absence of government control. Although regulatory choice is not limited to these two extremes, philosophical support for one or the other tends to be the driving force behind changes in public policy.

Since the late 1970s, local governments and the taxi industry have engaged in periodic debate regarding the merits of taxi deregulation. These debates were initially influenced by the deregulation of other prominent industries - airlines, trucking, and telecommunications to name a few. Proponents of taxi deregulation cited several kinds of consumer benefits that were experienced with these other deregulation efforts. These benefits were believed to include more taxi service and faster response times, lower fares, service innovations, and service expansion to under-served neighborhoods. Proponents of taxi regulation argued, in counterpoint, that deregulation would result in poorer service, less safety, less accountability, and less reliability. Because most taxi services in the US were regulated at the time these debates first occurred, there was little empirical evidence to support either argument.

The International Taxicab Foundation engaged Price Waterhouse to analyze and document the experiences with deregulation over the last ten years. Twenty-one cities deregulated taxi services prior to 1983, though no major cities are known to have deregulated since. The short-term effects of deregulation were previously documented in a series of case studies[1] sponsored by the US Department of Transportation, published in 1983 and 1984. The purpose of this report is to add to the record by describing changes in regulatory practices that followed deregulation, and to explore the comparative effects of deregulation over the long term.

It is important for readers to note that Price Waterhouse does not advocate either deregulation or regulation of taxi services. Rather, our purpose is to clarify and compare the effects of deregulation as experienced in a number of metropolitan areas in the US. We trust that this objective rendering of the available facts will assist public decision-makers in their deliberation of the taxi industry regulatory structure.

Short-Term Effects of Deregulation

Deregulation introduced several immediate changes in taxi supply, price, and service quality in the six cities for which detailed case study information is available (see citation above). The experience of these cities generally indicates that the benefits of deregulation were devalued by unanticipated and unattractive side effects:

- ***Although the supply of taxi services expanded dramatically, only marginal service improvements were experienced by consumers.*** Within a year of deregulation, the supply of taxi services increased an average of 23%. Because most new entrants were independent operators and small fleet owners with limited

[1] Berkeley, Oakland, Phoenix, Portland, San Diego, and Seattle.

capability to serve the telephone-based market, most new service was concentrated at already well-served locations - such as airports and major cabstands. Customer wait times at these locations, already short, were reduced further. Response times in the telephone market were similar to pre-deregulation performance. Trip refusals and no-shows, however, increased significantly.

- *Prices rose in every instance.* Paradoxically, the influx of new entrants did not invoke the price competition typically experienced in other newly-deregulated industries. Prices rose an average of 29% in the year following deregulation. There appear to be two sources of this unexpected event. First, fare increases prior to deregulation had consistently lagged cost increases. Veteran operators thus corrected prices at the first opportunity. Second, new entrants generally charged higher fares than the veteran operators. The cabstand markets on which these operators focused their services are generally price insensitive and, because of the first-in first-out nature of taxi queues, comparison shopping is discouraged. For these reasons, the new entrants had no incentive to introduce price competition.

- *Service quality declined.* Trip refusals, a decline in vehicle age and condition, and aggressive passenger solicitation associated with an over-supply of taxis are characteristic of a worsening in service quality following deregulation.

The negative aspects of deregulation were especially evident at airports and major tourist attractions. As a result, deregulation often acquired the enmity of the business community and adverse media coverage. These effects were most closely associated with cities that implemented an "open entry" policy that enabled an influx of independent owner-operators that were unaffiliated with companies or taxi cooperatives.

The short-term effects of deregulation were less adverse in smaller cities which have an insignificant cabstand market. The telephone-based market, which dominates the smaller cities, is difficult for independent operators to serve effectively. These cities thus avoided the structural changes to the industry that contributed to the problems in larger cities noted above.

Post-Deregulation Changes in Regulatory Practices

All post-deregulation changes in regulatory practices were limited to cities that had implemented a "fully deregulated" system, wherein both market entry and fares were left to the industry's discretion[2]. Other cities which had only partially deregulated - for example, through the use of minimum standards for market entry or by relaxing government involvement in fares - reported no changes in regulatory structure.

Nine of the thirteen cities that had deregulated via "open entry" chose to revert to a regulated system, either in whole or in part, by 1992. Six cities returned to a fully-regulated structure, in which the local government limits market entry and sets a fixed or maximum fare. Two other cities implemented regulations for airport-based service. These eight cities were the

[2] see Section 1 of this report for a definition of the taxi regulatory structure.

largest of those that had initially deregulated, and had the most intensive airport activity. One other city reverted to a minimum standards approach.

Only four of the 21 cities continue to employ a fully-deregulated system. These are among the smallest cities in the group. Related to the size of these cities is the absence of major structural changes in the industry that precipitated re-regulation in the larger cities.

Long-Term Effects of Deregulation

Long-term price performance in deregulated cities is similar to that of regulated cities, based on price information submitted annually by members of the International Taxicab and Livery Association (ITLA). Between 1985 and 1992, the median fare[3] for a five-mile trip rose by 6.5% ($0.50) in deregulated cities versus 4.8% ($0.33) in a sample of regulated cities (see appendix B for details). Fares in cities which re-regulated their taxi services rose by only 2% ($0.17) during this period, a reaction to the high rate of fare growth following deregulation. These results indicate that deregulation, over the long term, has contributed to neither higher nor lower fares than experienced by the industry generally.

Other long-term effects of deregulation are difficult to discern. Taxi supply (i.e., taxis per 1,000 population) in deregulated cities stabilized after the short-term increases noted above, and appears to be lower and more variable than in regulated or re-regulated cities. Very little data is available to support long-term evaluation of service quality. These types of data are rarely collected even in regulated cities, and are especially scarce in deregulated cities.

* * * * *

In retrospect, the effects of taxi deregulation have ranged from benign to adverse, depending on local conditions and markets. There appears to be scant evidence that deregulation fully achieved the goals on which its implementation was premised, though some goals clearly were achieved (e.g., more taxis, less regulatory involvement by government). Market imperfections peculiar to the taxi industry, including unusual product supply (e.g., first-in, first-out queues at cabstands) and poor availability of information on price and quality, tend to negate the consumer benefits typically associated with deregulation in other industries. It is perhaps noteworthy that no major US cities have deregulated taxi services since the early 1980s.

[3] In constant 1992 dollars.

1. FRAMEWORK

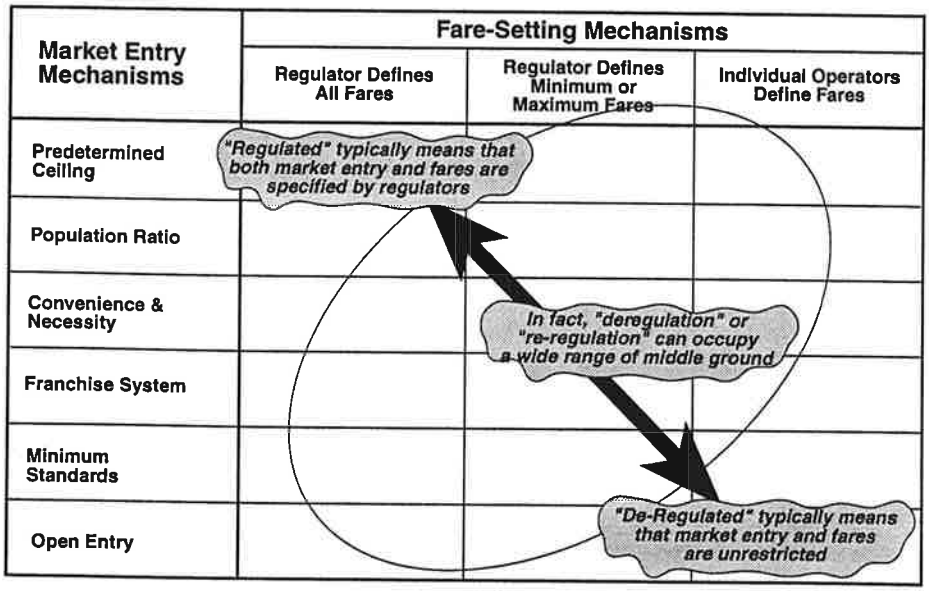
A wave of deregulation occurred in the taxicab industry during the late 1970s and early 1980s, involving 21 cities across the U.S. Since that time, most deregulated cities experienced unfavorable results and opted to re-regulate, while the remainder have for various reasons remained deregulated. The purpose of this report is to document the experience of each, and to explain the circumstances which led to these different outcomes.

This section of the report introduces the terminology used to describe taxi regulation, and provides an overview of the methods used to compile the record on deregulation.

Regulation, Deregulation, and Re-Regulation

Taxicab regulation and deregulation refer to opposite ends of a spectrum of government control over taxi services. *Regulation* typically implies government determination of service supply (by limiting taxi licenses), or prices (by setting fixed or maximum fares), or both. *Deregulation*, in contrast, typically implies an absence of government control. *Re-regulation* refers to a tightening of government control over service supply and/or prices, following a period of relaxation of controls.

The matrix below illustrates the two basic dimensions of the regulatory structure: market entry mechanisms and fare-setting mechanisms. Market entry mechanisms, shown in the left-most column, range from most restrictive (predetermined ceiling) to least restrictive (open entry). Fare-setting mechanisms, shown in the top-most row, range from most restrictive (regulator defines all fares) to least restrictive (individual operators define fares). Full regulation and full deregulation refer to opposite corners of this matrix, as shown. Between these two extremes lie hybrid approaches by which government may control some aspects of taxi service that are of concern to local interests.



Definitions for the types of market entry mechanisms[4], in order of decreasing government control, are as follows:

- **Predetermined ceiling.** The city limits the number of taxicabs in operation, typically by issuing a fixed number of taxicab permits. If demand for taxicab service exceeds the ceiling, this is effectively a closed entry policy.

- **Population ratio.** The number of taxicabs in operation is set as a function of population (e.g., 0.75 cabs per 1,000). The ratio allows the number of permits to vary with demand.

- **Convenience and necessity.** New permits may be issued under certain conditions. A wide range of criteria fall into this category, usually relevant to demand and the need for additional service.

- **Franchise system.** This system involves granting specific companies the right to operate taxicabs. Its effect may range from closed entry to open entry, depending on the requirements for entry of new companies and the ability of existing companies to increase the number of cabs.

- **Minimum standards.** Cabs are allowed to operate as long as they satisfy certain minimum standards. These standards differ from convenience and necessity in that they are unrelated to demand. The standards may include one or more of these factors: a minimum number of vehicles, radio dispatch capability, 24 hour service, or a vehicle age limit. These regulations limit supply by raising the cost of market entry.

- **Open entry.** Under open entry, almost anyone who owns an operable vehicle can obtain a taxi permit and provide service. There are still requirements under open entry, such as insurance or absence of a criminal record, but these are less restrictive than is the case for minimum standards.

The last two mechanisms - minimum standards and open entry - are most closely associated with deregulation. These mechanisms remove the regulatory body from decisions regarding taxicab supply, relying on market forces to establish an equilibrium. Minimum standards, however, can be used to influence the type of new entrants to the market, and thus the quality and stability of service.

Fare-setting mechanisms form the second dimension of the regulatory matrix. Definitions of these mechanisms are as follows:

- **Government-set fares.** The local government sets the fare that operators may charge. The rationale is that taxicab service is a public utility, and the public must be protected from unreasonable rates.

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[4] Definitions were drawn from: Urban Mass Transportation Administration, *Taxicab Regulation in US Cities: Volume 1 (Final Report)*; October 1983.

- **Minimum and/or maximum fares.** The local government sets a fare ceiling or a floor, and taxicab operators may charge any fare in the allowable range. The minimum or maximum fare may be set precisely by the regulator, or defined as a function of the average or median fare across all operators. It thus allows some amount of price competition.

- **Industry-set fares.** Fares are left up to the discretion of each operator. Often, operators must still file their rates, and the government may limit the number of rate changes per year.

Of these, industry-set fares are most closely associated with deregulation. This removes the regulator from making decisions not only about fares, but also other factors that influence the specification of an acceptable fare, such as productivity and profitability.

Research Methods

The information presented in this report was compiled via the following methods:

- **Literature review:** All references in this report to the short-term impacts of deregulation were drawn from previous studies of taxicab deregulation. Most of these studies were published between 1982 and 1984, and were sponsored by USDOT/UMTA's Service and Management Demonstration (SMD) Program. Other sources were used as well. A bibliography follows the appendices at the end of this report.

- **Telephone surveys:** Phone interviews were conducted with regulators or other city administrative staff in the 21 cities that pursued some form of deregulation. The primary purpose of these interviews was to verify the current regulatory structure, and factors contributing to regulatory change. A limitation of this method is that the deregulations occurred nearly ten years ago, generally exceeding the institutional memory and file retention of city regulatory agencies. A summary of current and historical regulatory changes for these cities is provided in Appendix A.

- **International Taxicab & Livery Association (ITLA) statistics:** Statistics on price and supply for the years 1985 and 1992 were abstracted from the *Taxicab Fact Book*, as reported by ITLA members. These post-deregulation statistics were used to determine the longer-term impacts on price and supply, and to compare the experience of regulated and deregulated cities. Price Waterhouse did not independently verify this information. A table of price and supply statistics referenced in this report is presented in Appendix B.

- **Case studies:** On-site interviews were conducted in San Diego, Seattle, and Phoenix to collect additional information on the transition to and from deregulation.

Information on service quality also was sought but found to be generally unavailable. Consequently, only the short-term impacts on service quality, from the USDOT/UMTA studies, are referenced herein.

2. TAXI REGULATION

Regulations governing the taxicab industry have been in place since the beginning of taxicab service. The most active period for new taxicab regulation in the US occurred during the late 1920s and early 1930s, when the Depression caused extremely competitive conditions, and growing urban centers invariably experienced problems with taxicab service. A *Washington Post* article from 1933, entitled "Taxicab Chaos," effectively conveys the initial desire for taxicab regulations:

> Taxicabs are literally running wild on Washington streets, with almost complete lack of supervision or control. Public safety, reasonable working regulations, and equitable rates are almost completely disregarded...Hundreds of inexperienced drivers rent cabs and offer their services to the public. One driver who was recently observed proceeding down Pennsylvania Avenue like a derelict confessed that he had not driven a car for seven or eight years.

A central feature of taxicab service is the potentially low cost of market entry. A serviceable vehicle and a licensed driver are the minimum requirements to start a taxicab operation. In an unregulated environment, the low cost of entry attracts individuals who have limited employment options. Thus, during periods of high unemployment, independent taxi operators flood the market. Conditions such as these during the Depression led cities to regulate taxi services. Once this practice was established, it tended to spread to other cities as a precedent for protecting the public interest.

Accordingly, restriction of market entry is the central feature of the taxi regulatory structure. Three arguments are traditionally cited by the taxi industry in favor of regulating market entry[5]:

- "natural monopoly" - one firm can provide services at least cost
- "destructive competition" - too many competitors yield insufficient profits and cause declines in safety and service.
- "cross subsidy" - profits in lucrative markets are needed to subsidize service in unprofitable markets.

A 1983 study estimated that 80% of cities limited market entry, and 77% regulated fares. The full distribution of regulatory practices is shown in the graph on the following page.

Most taxi regulations are effected by local jurisdictions (i.e., cities and counties). Only three states completely regulate taxis, and seven others exert partial control. The remaining states generally specify only minimum standards for safety, leaving fare and entry regulation to local governments.

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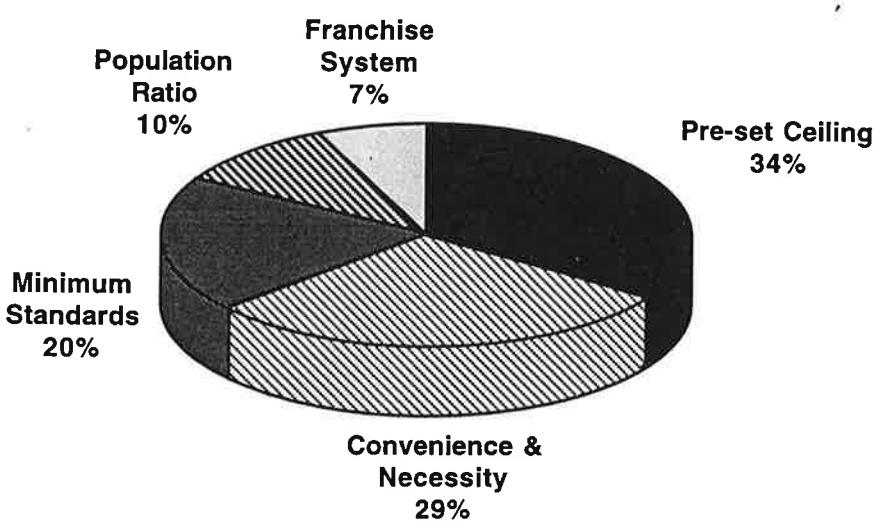
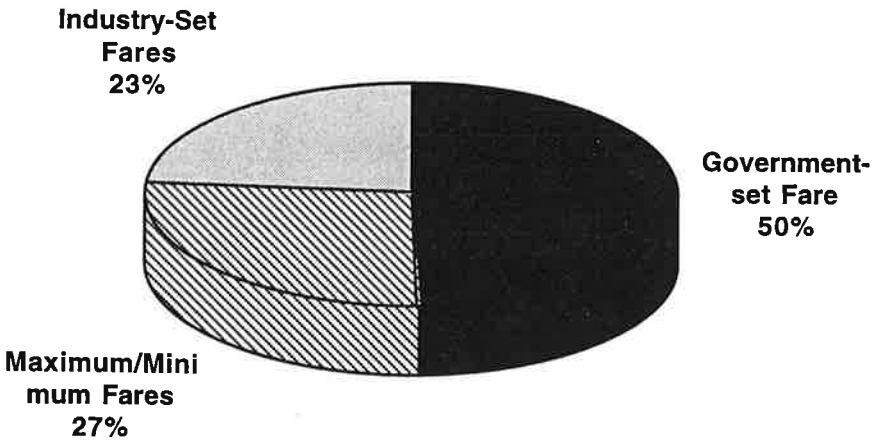
[5] From Teal, et al, *Urban Transportation Regulation in Arizona*, USDOT/UMTA, 1984.

Market Entry Mechanisms



Fare-Setting Mechanisms



Source: Shaw, Gilbert, et al, *Taxicab Regulations in US Cities*, USDOT/UMTA, 1983.

3. TAXI DEREGULATION AND RE-REGULATION

Through 1983, twenty-one US cities opted to deregulate taxi services to various degrees. In the past ten years, six of these cities reverted to a fully-regulated system, and another two cities regulated taxi services at airports. The cities which maintained a deregulated structure tended to have one of the following characteristics: (1) relatively smaller in population than the other cities; (2) less reliant on airport activity; or (3) had implemented other measures that raised the hurdles for market entry. Only four of the 21 cities continue to employ a fully-deregulated system today.

This section of the report describes why these twenty-one cities deregulated, the effects of deregulation, and changes in the regulatory structure following deregulation.

Why Cities Deregulated

Twenty-one US cities, principally in western and Sunbelt states, deregulated taxi services by 1983. Two cities - Atlanta and Indianapolis - deregulated in 1965 and 1973, respectively. The remaining nineteen cities deregulated between 1979 and 1983. Most of these cities moved from traditional regulatory structures to one of two forms of deregulated market entry: (1) open entry (13 cities); and (2) minimum standards (5 cities). Three other cities deregulated fares, but maintained controls over market entry. Graphics showing the locations and dates of these deregulations, and the changes in regulatory structure, are presented on the following page.

In telephone and on-site surveys of these cities, a free-market ideology was cited as the driving force behind deregulation, which held the following expectations:

- **Price.** Presuming that entry restrictions had enabled incumbent operators to charge higher fares than would prevail in a competitive market, proponents of deregulation expected new entrants to force a reduction in the prevailing rates. The positive license values in regulated cities were cited as evidence that the incumbent operators enjoyed some monopoly power.

- **Level of service.** As entry restrictions are lifted, deregulation proponents expected the number of cabs in service to increase. In theory, these additional cabs should reduce the wait times for street-hailed service and response times for telephone orders.

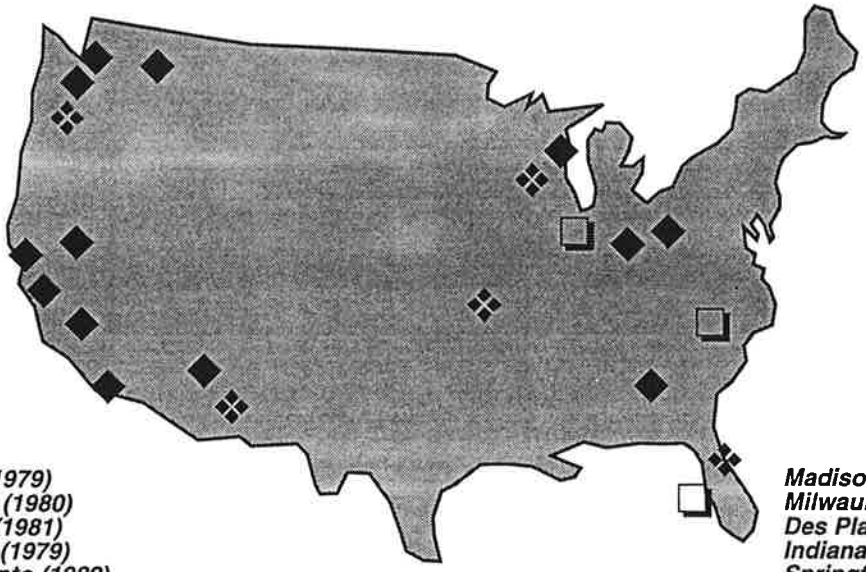
- **Quality of service.** Proponents of deregulation expected that the new competitiveness of the industry should cause operators to compete based on quality as well as price, resulting in improved service quality and the availability of new pricing and service options.

- **Administrative costs.** Proponents of deregulation expected that open entry would reduce government costs by eliminating permit processing efforts, and that costs would also be saved by eliminating rate change review.

While some of these benefits were realized through deregulation, other less attractive and unanticipated results occurred as well. In most cities, these outweighed the benefits and forced a reconsideration of full-scale deregulation.

Summary of Taxi Deregulation in the US

Location & Timing of Deregulations



Seattle (1979)
Spokane (1980)
Tacoma (1981)
Portland (1979)
Sacramento (1982)
Oakland (1979)
Berkeley (1980)
Fresno (1979)
San Diego (1979)
Phoenix (1982)
Tucson (1982)

◆ *Open Entry*

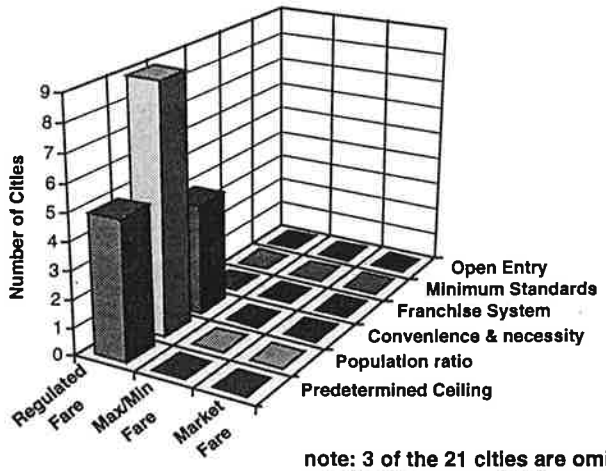
❖ *Minimum Standards*

❑ *Fares Only (restricted entry)*

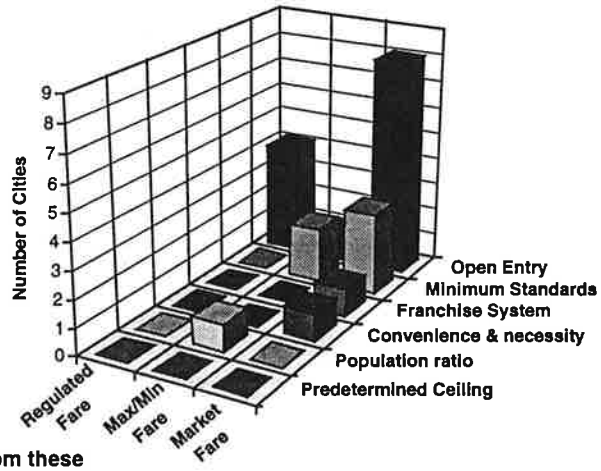
Madison (1979)
Milwaukee (1979)
Des Plaines, IL (1981)
Indianapolis (1973)
Springfield, OH (1981)
Kansas City (1983)
Charlotte (1982)
Atlanta (1965)
Jacksonville (1983)
Tampa (N/A)

Taxi Regulatory Structure: Pre- and Post-Deregulation

Pre-Deregulation



Post-Deregulation



note: 3 of the 21 cities are omitted from these graphs due to missing information on the pre-deregulation regulatory structure

Effects of Deregulation

The effects of deregulation varied by location. Cities which had a relatively large population, a high level of airport activity, and conditions conducive to low-cost market entry tended to have a negative experience with deregulation. As a result, these cities either fully or partially re-regulated taxi services (see "Post-Deregulation Changes in Regulatory Structure", following this section). Cities which did not possess the above characteristics, conversely, experienced no dramatic effects - either positive or negative - and have performed much like the rest of the industry over the long-term.

A summary of the effects of deregulation is presented below.

Price

Despite a large increase in service supply (see "Level of Service" on page 11), which in other industries has fostered price competition, prices rose following taxi deregulation in every documented case. The short-term changes in price were quite dramatic. In the long-run, however, prices in deregulated cities have performed similar to the industry as a whole. Please refer to the graphs on page 9 for a summary of short-term and long-term changes in price.

In the first year following deregulation, the average 5-mile fare rose by 29% ($1.39) in the six cities documented in the USDOT case studies. This ranged from a high of 56% ($2.40) in Seattle to a low of 7% ($0.40) in Oakland. The price increases roughly reflect changes in industry structure, particularly an increase in independent and small-fleet operators (see "Level of Service", below). In Seattle and San Diego, these operators were observed to charge higher fares - sometimes substantially higher fares - than those charged by the larger, more-established companies. This can be seen in the graphs on page 10. A similar effect was noted[6] in Phoenix, but price information by company size was not documented. In all three cities, independent and small-fleet operators focused their service on major cabstands and the airports. These are generally price-insensitive markets with little or no comparison shopping by prospective customers. This condition, along with the fact that these operators spent long wait times in the taxi queues, discouraged price competition on the part of new entrants.

In the long-term (i.e., 1985-1992), price trends in deregulated cities are similar to those in re-regulated cities and regulated cities (see bottom graph on page 9). The median fare[7] for a five-mile trip rose by 6.5% ($0.50) in deregulated cities versus 4.8% ($0.33) in regulated cities. Fares in cities which re-regulated their taxi services rose by only 2% ($0.17) during this period, a reaction to the high rate of fare growth during their deregulated period. These results indicate that deregulation, over the long term, has had little impact on fare growth relative to the rest of the industry.

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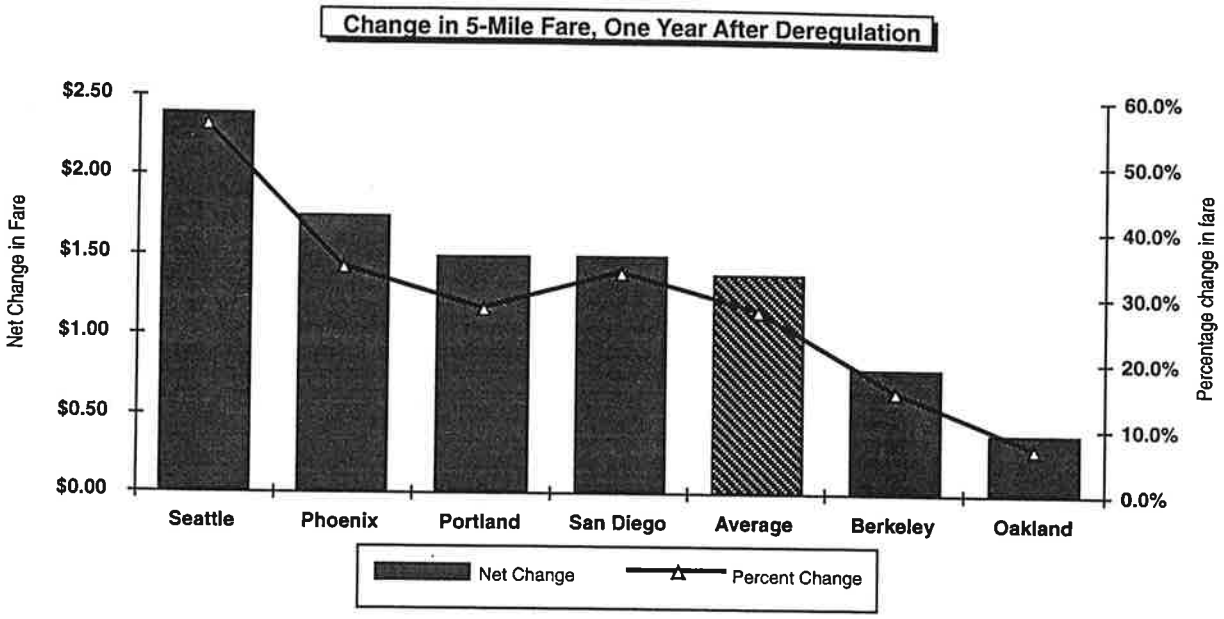
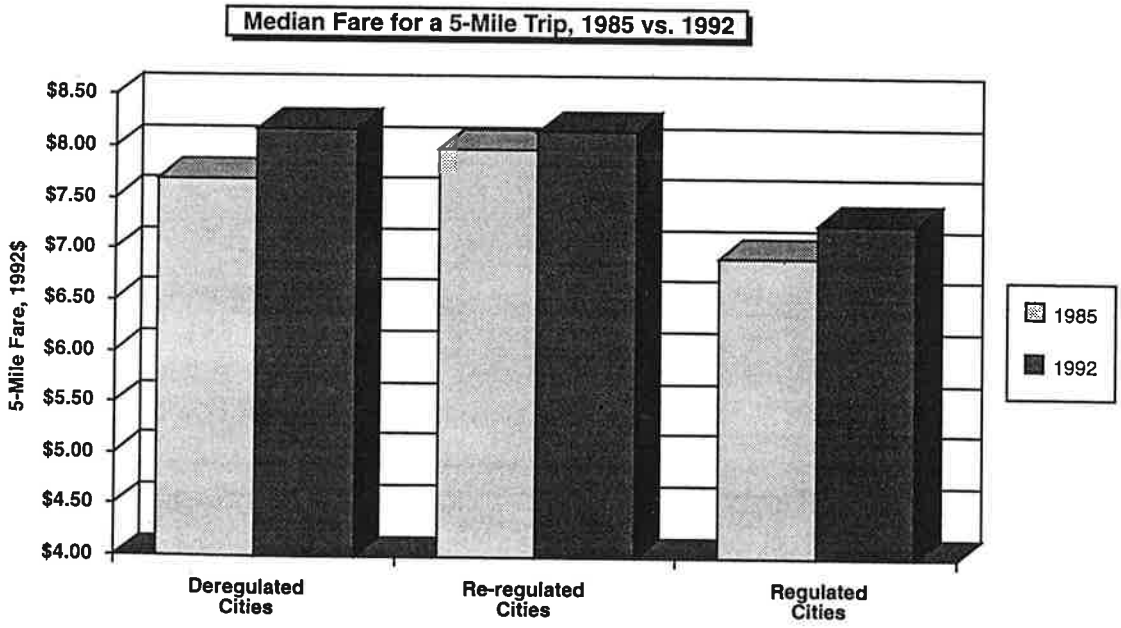
6 Teal, et al, Urban Transportation Deregulation in Arizona, USDOT, 1984, page 54.

7 In constant 1992 dollars.

Taxi Prices: Short-Term and Long-Term Trends

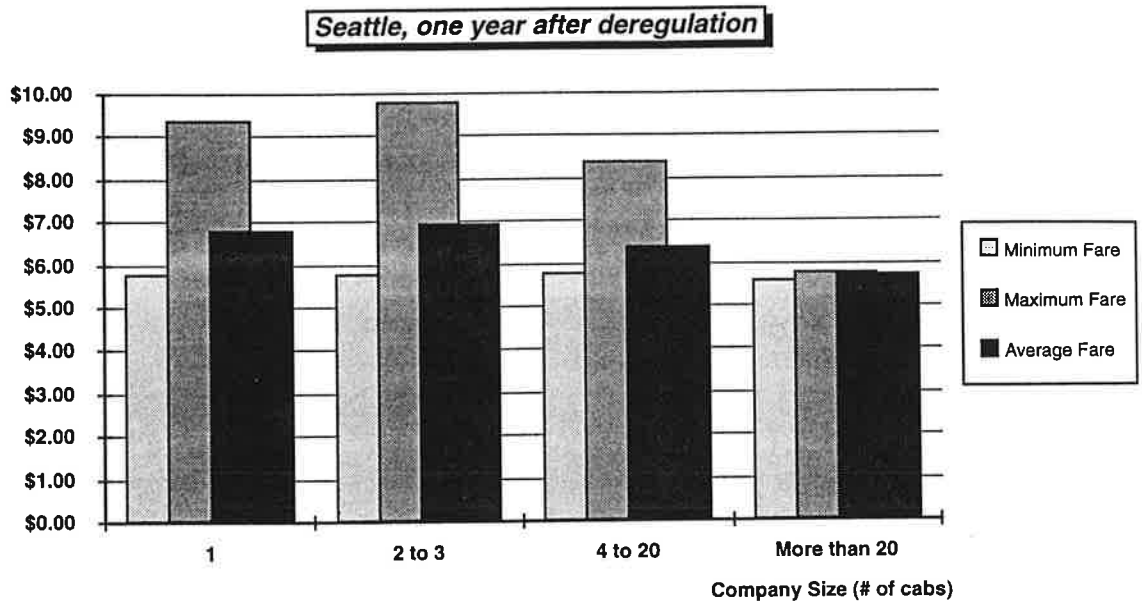


Source: USDOT case studies on the effects of taxi regulatory revision, 1983-1984.

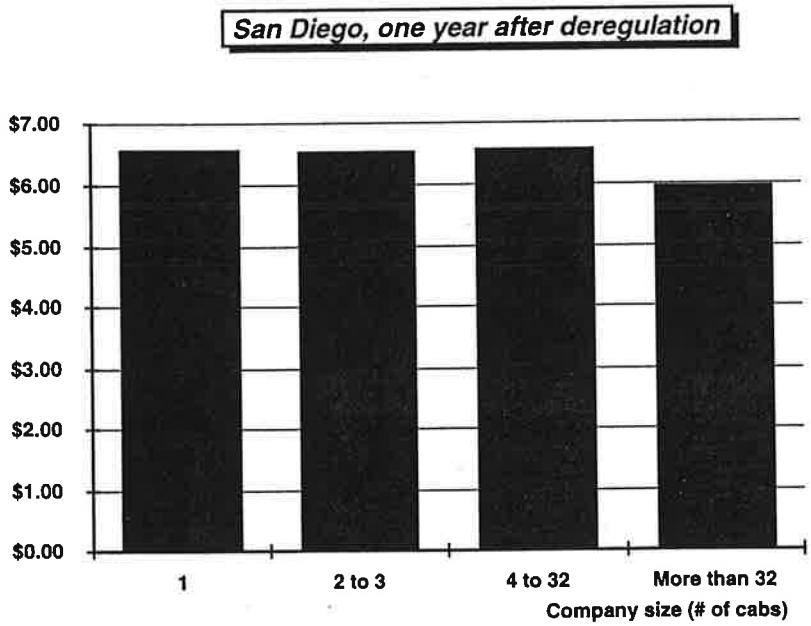


Source: drawn from ITLA Taxicab Fact Book statistics (see Appendix B)

Fares for a 5-Mile Trip, by Company Size



source: compiled by Price Waterhouse from taxicab rate data reported by the City of Seattle Department of Licenses and Consumer Affairs, June 1980.



Source: USDOT, Effects of Regulatory Revision in San Diego, 1983.

Level of Service

Deregulation produced in most cases an immediate, large increase in the number of taxis. Because new entrants tended to congregate at already well-served locations, this large increase in supply did not produce corresponding improvements in customer service. In the long term, the level of service appears to have stabilized in deregulated cities. Data are insufficient, however, to comment on the long-term effects of taxi supply on service improvements.

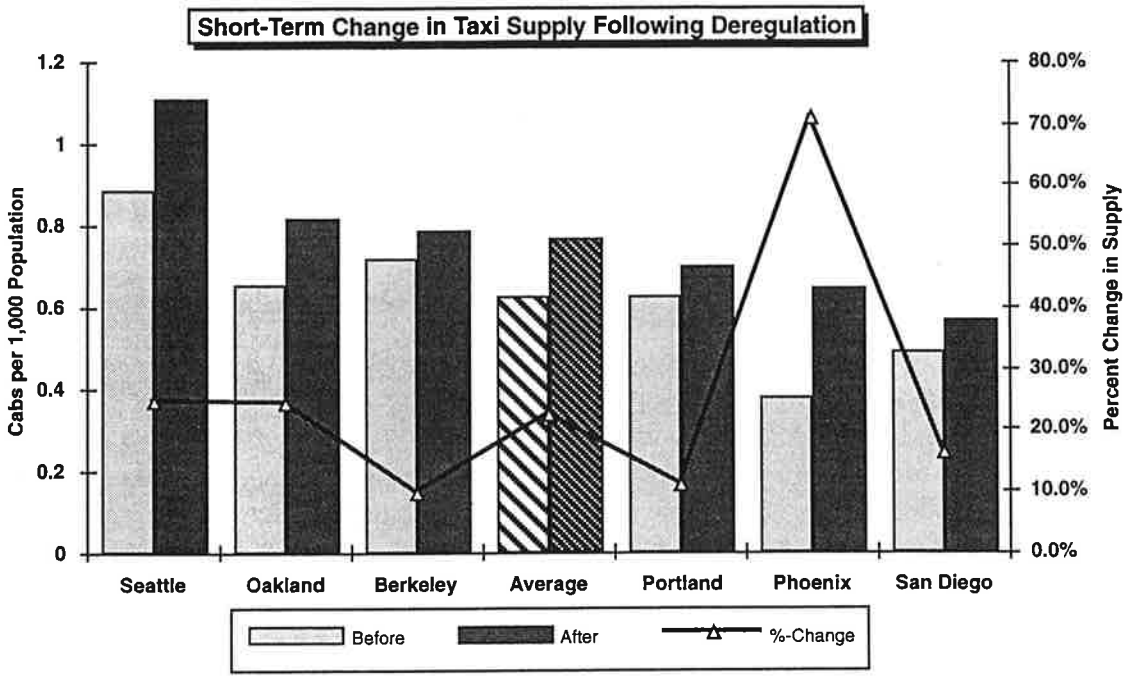
As noted in the graph (top) on the following page, the number of taxi operators immediately after deregulation increased by 23% on average, ranging from a high of 70% (Phoenix) to a low of 10% (Berkeley). The type of new entrants varied considerably among these cities (see bottom graph on following page). In Phoenix, San Diego, and Seattle, the percentage of cabs operated by independents and small-fleet owners grew while the percentage of large fleet operators declined. These operators focused their service on the airports and major cabstands. Consequently, Phoenix, San Diego, and Seattle experienced large fare increases that were in part attributable to small operators serving a price-insensitive market (see "Price", above). In Oakland, on the other hand, new large fleet owners entered the market, while in Berkeley there was little change. In contrast to the other cities above, Oakland and Berkeley experienced little change in fares.

Customer-oriented service improvements expected to occur with the large increase in supply were observed to be marginal. Focus of new entrants on the cabstand market, as noted earlier, reduced already-short wait times to almost zero. Response times for the telephone-based market were not consistently evaluated in the case studies, though the available data suggests that little change occurred. In the only data set containing before-and-after data (for San Diego)[8] response times for all serviced calls were about the same after deregulation (13.6 minutes) as before (13.4 minutes). The rate of no-shows and trip cancellations, however, increased dramatically - from 2% of all calls to 18.2%. As shown in the graph on page 13, trip refusals and no-shows are most closely related to small fleets and independent operators. This was found to be true in both San Diego and Seattle.

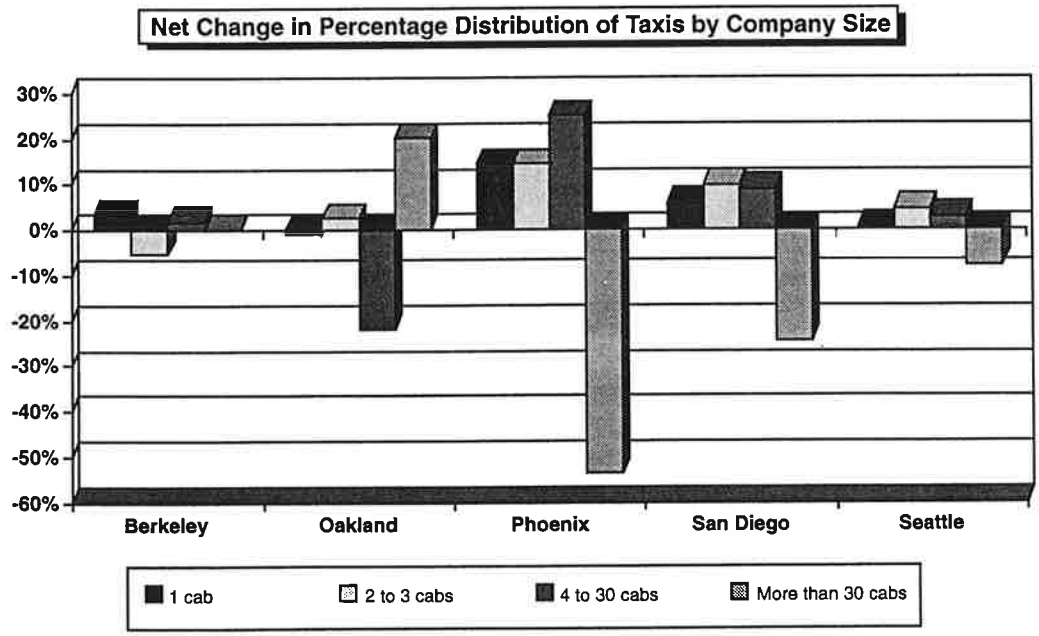
Long-term data for evaluating taxi supply and service improvements are sparse. Although taxi supply data was made available by the ITLA, geographic inconsistencies between taxi supply data and population tend to limit the validity of long-term comparisons to trends within classes of cities - deregulated, re-regulated and regulated (see graph on page 14). It is apparent that growth in taxi supply in currently-deregulated cities has stabilized. Meanwhile, taxi supply has declined relative to population in re-regulated and regulated cities. In re-regulated cities, this reflects a continuing correction to the rapid growth in taxi supply that occurred with deregulation (note: for a description of changes in regulatory structure by city, see "Post-Deregulation Regulatory Changes", below).

[8] USDOT, *Effects of Regulatory Revision in San Diego*, 1983, Table B-9.

Changes in Taxi Supply & Industry Structure Following Deregulation

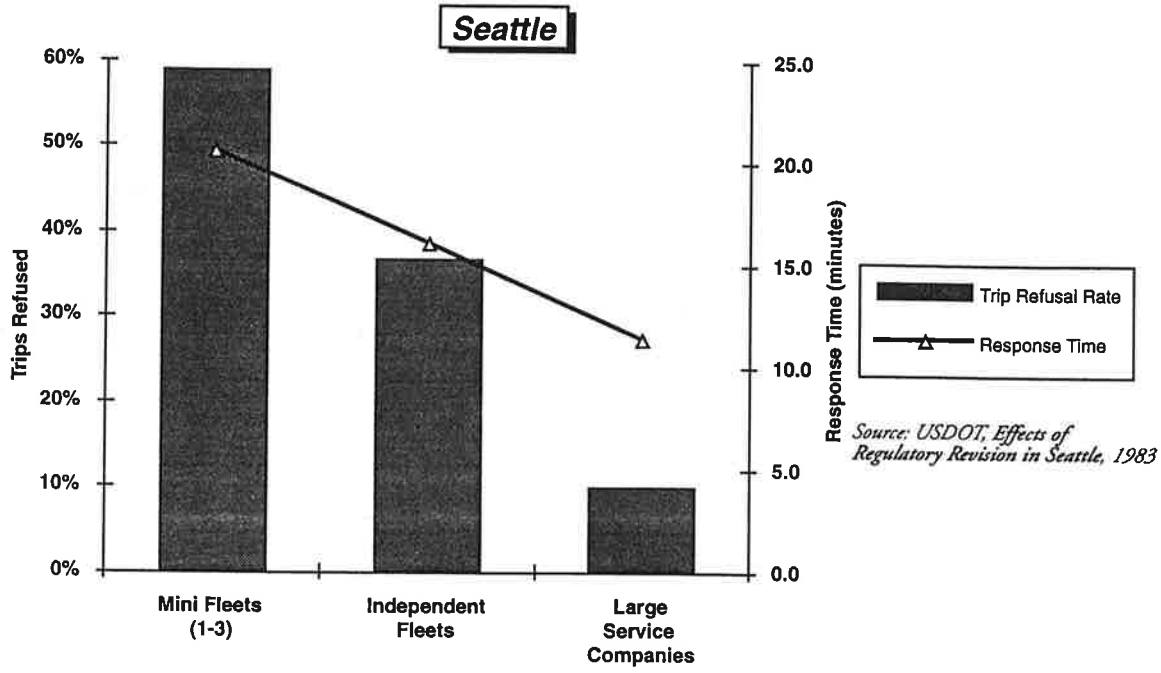


Source: USDOT/UMTA case studies on the effects of taxiregulatory revision, 1983-1984

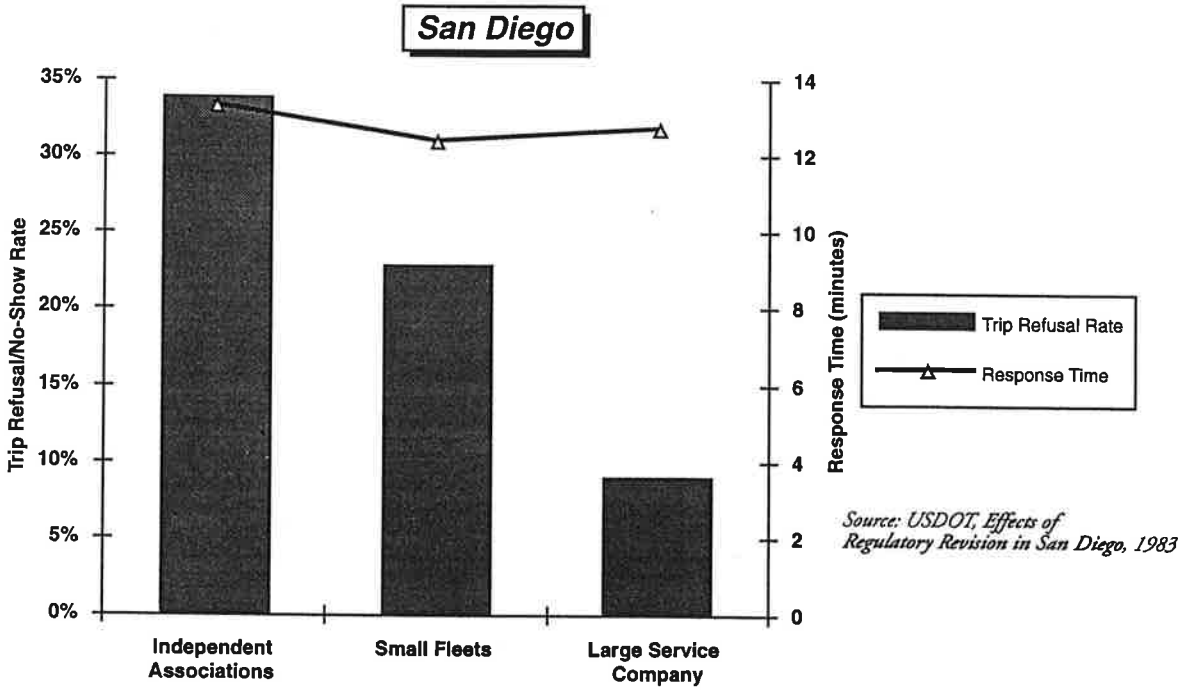


Source: USDOT/UMTA case studies on the effects of taxiregulatory revision, 1983-1984

Response to Telephone-Based Service Requests After Deregulation

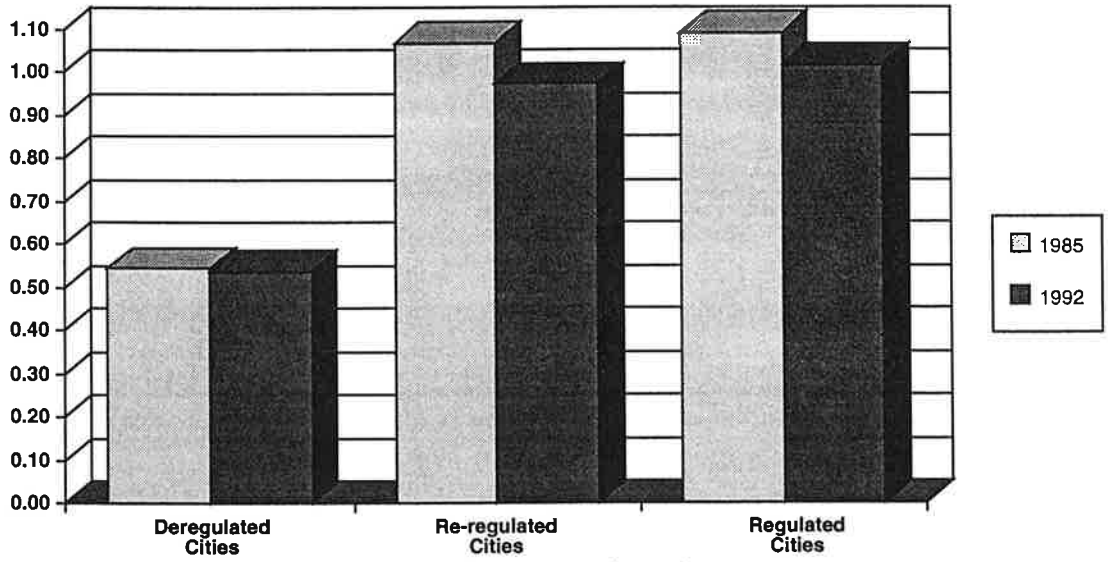


Source: USDOT, Effects of Regulatory Revision in Seattle, 1983



Source: USDOT, Effects of Regulatory Revision in San Diego, 1983

Taxis per 1,000 Population (median values)



Note: geographic inconsistencies between taxi supply and population data skew the cabs per 1,000 figure and thus comparisons across categories may not be accurate. The 1985-92 trends, however, should be valid.

Source: ITLA Taxicab Fact Book and US Census. See Appendix B for details.

Service Quality

The quality of taxi service is affected by several variables, including: (1) responsiveness to customers; (2) vehicle condition and cleanliness; and (3) driver behavior. The case studies of the effects of deregulation provide limited, but consistent, data on the first two of these variables. Information on driver behavior is referenced in the case studies, but is less rigorously measured.

As noted above in "Level of Service", the short-term effects of deregulation included a slight improvement in waiting times at cabstands, an insignificant change in response times to telephone-based service requests, and a significant increase in service refusals and no-shows. On balance, it can be said that deregulation provided marginal improvements in customer responsiveness, but only for those customers that taxi operators deemed to be high priority (as evidenced from the trip refusal rate).

The effect of deregulation on vehicle condition can be assessed by changes in vehicle age and inspection results. In San Diego, vehicles owned by new market entrants - generally independents and small fleet owners - were observed to be 7.1 years old on average, versus 2.9 years for the large service company that held most of the taxi licenses prior to deregulation (see graph on following page). Two years following deregulation, all fleets operated with yet older vehicles. In Seattle, the median vehicle age increased to 6 years old following deregulation from 4 years old prior to deregulation[9]. Further, vehicle inspection failures increased to 35% two years following deregulation from 20% the year prior to deregulation. Both cases suggest that a large influx of new entrants causes all operators to defer investment until market conditions allow a greater return on investment.

Information on changes in driver behavior following deregulation is scant. At major cabstands and airports, however, over-supply of taxis was consistently reported to result in aggressive solicitation of passengers and confrontations among drivers. There is no evidence, hearsay or otherwise, indicating that deregulation acted to improve relations between drivers and customers.

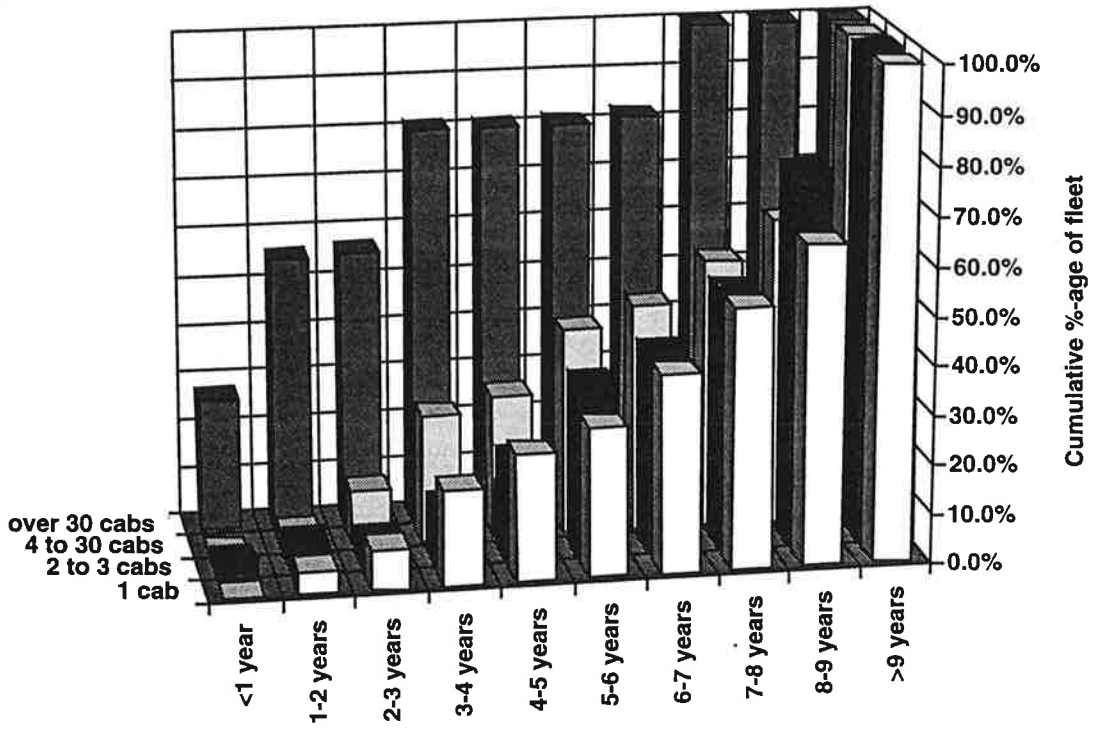
Administrative Costs

Changes in administrative costs as a result of deregulation depend on several variables, including: (1) the volume of new market entrants; (2) license application and vehicle inspection procedures; (3) the frequency of rate changes; and (4) the fee structure and cost recovery policy of the local jurisdiction.

The USDOT case studies on the effects of deregulation indicate that administrative costs either did not change or increased following deregulation. In San Diego, open entry was reported to increase the time and dollar cost of permit processing and related activities[10]. This was influenced primarily by the volume of

[9] USDOT/UMTA, *Effects of Taxi Regulatory Revision in Seattle*, 1983, p. 98.
[10] USDOT/UMTA, *Effects of Taxi Regulatory Revision in San Diego*, 1983, pp. 200-204.

Comparison of Fleet Age by Size of Taxi Company - San Diego
(one year after deregulation)



how to read this chart:
each bar shows the percentage of a fleet that is equal to or less than the age displayed on the horizontal axis.

source:
USDOT/UMTA, Effects of Taxi Regulatory Revision in San Diego, 1983, p. B-11.

[continued from previous page]

new permit requests submitted by market entrants. In Seattle, staff costs were reported to increase due to the larger number of taxis to be inspected. Inspection efforts were exacerbated by the provision for quarterly fare changes, which necessitated a corresponding increase in meter validations[11]. Oakland and Berkeley, in contrast, experienced immaterial changes in costs[12]. As noted earlier, open entry in these cities did not result in a large influx of new operators.

In the cities for which objective and consistent data are available regarding the effects of deregulation, the fully-deregulated model (i.e., open entry and industry-set fares) appears to have yielded few desired changes in taxi service. An increase in the number of taxis was the most clearly-attained objective. Other unanticipated and unattractive results that were associated with the large influx of new operators encouraged most open entry cities to reconsider taxi deregulation. These post-deregulation changes in regulatory structure are described in the following section.

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[11] USDOT/UMTA, *Effects of Taxi Regulatory Revision in Seattle*, 1983, p. 146.
[12] USDOT/UMTA, *Taxi Regulatory Revision in Oakland & Berkeley, California: Two Case Studies*, 1983, p. 54.

Post-Deregulation Changes in Regulatory Structure

In response to the problems noted above, most of the cities that deregulated have since reverted to some form of regulation. As shown in the graph on the following page (top), this wave of re-regulation was led by the largest cities of the group that had the most intensive airport activity. Particularly notable was a shift from open entry to some form of re-regulation, presented in the table below.

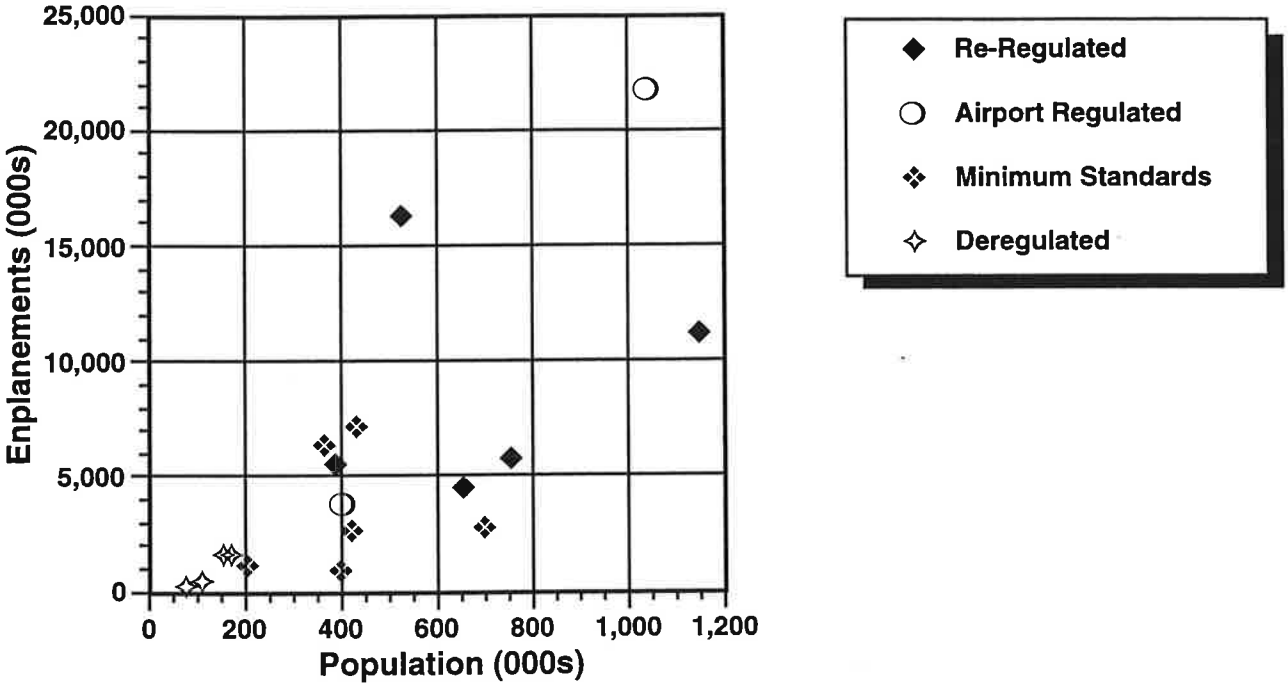
City	*Date of Initial Deregulation*	*Type of Re-Regulation*	*Date of Re-Regulation*
Atlanta	1965	Pre-determined ceiling, regulated fares	1981
Indianapolis	1973	Pre-determined ceiling, regulated fares	1974
Milwaukee	1979	Pre-determined ceiling, regulated fares	1992
Oakland	1979	Pre-determined ceiling, regulated fares	1988
San Diego	1979	Pre-determined ceiling, maximum fares	1982
Seattle	1979	Pre-determined ceiling, maximum fares	1984
Phoenix	1982	Airport franchise	1983
Sacramento	1982	Airport permits	unknown

The current regulatory structure for the original 21 deregulated cities shows a clear split between the fully-regulated and fully deregulated models. The current status of these cities is as follows: (1) six cities that were previously open entry have re-regulated all taxi services; (2) two cities that were previously open entry have regulated airport-based services, while retaining an open entry approach for non-airport services; (3) three cities had deregulated fares only, and have continued this practice while retaining entry controls (e.g., convenience & necessity); (4) six cities retained a minimum standards approach; and (5) four cities retained the fully-deregulated approach, combining open entry with industry-set fares. Of the thirteen cities that had originally opted for open entry, only four continue this practice today.

The cities that have fully "re-regulated" taxi services tend to be larger cities in which deregulation (i.e., open entry) had attracted a large number of independent operators - Atlanta, Indianapolis, San Diego, and Seattle. Two other large cities - Milwaukee and Oakland - re-regulated for other reasons.

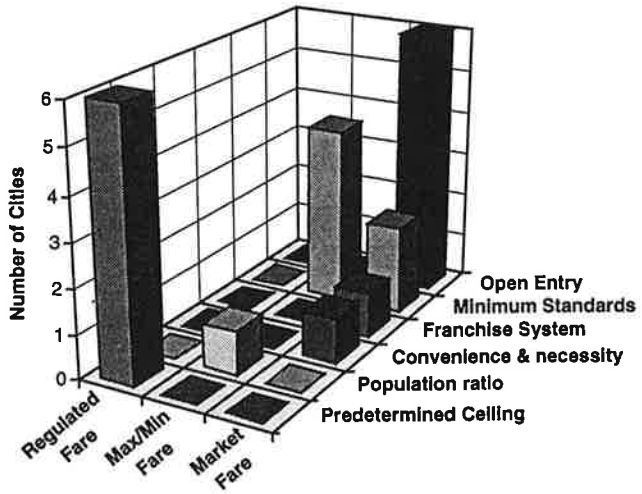
Two open entry cities - Phoenix and Sacramento - chose to regulate taxi service from airports, the most visible source of problems, but retained the open entry system for all other taxi services. In these cities, private-sector "franchise systems" also have evolved wherein major hotels enter into exclusive contracts with taxi companies to provide service to their guests. Thus, the formal and informal regulation of major stand markets was effected in some deregulated cities to protect consumers who are unlikely or unable to shop for the best taxi among competing services.

Current Regulatory Structure in Cities That Deregulated Taxis Between 1979 & 1983

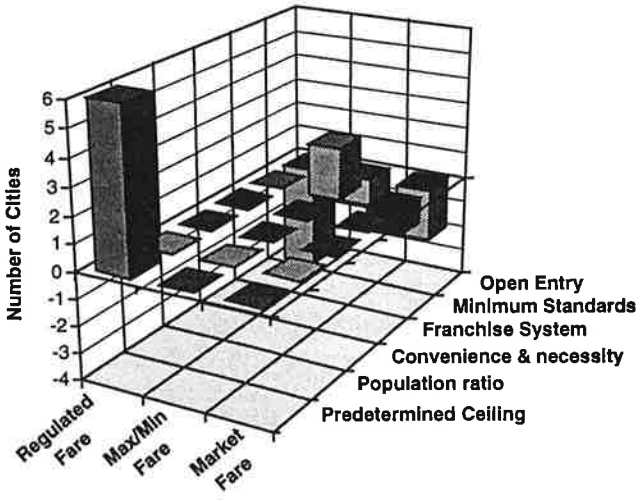


Regulatory Structure in Deregulated and Re-Regulated Cities

Current Regulatory Structure in the 21 Deregulated Cities



Changes in Regulatory Structure Compared to Initial Deregulation



The cities which had limited deregulation to fares only reported no significant issues and to our knowledge have made no ensuing regulatory changes. Each of these cities has entry restrictions, however. The cities include: (1) Tampa (population ratio approach); (2) Des Plaines, Illinois (convenience & necessity approach); and (3) Charlotte (franchise system approach).

The cities which employed a minimum standards approach to market entry, which is a mid-point between full deregulation and full regulation of taxi services, likewise reported no significant issues and accordingly have maintained this structure. These cities include: (1) Portland, Oregon; (2) Fresno, California; (3) Madison, Wisconsin; (4) Kansas City, Missouri; (5) Tucson, Arizona; and (6) Jacksonville, Florida. The minimum standards (e.g.,. 24-hour dispatch capability) exercised in these cities act to raise the cost of market entry, thus discouraging independent owner-operators that are not affiliated with a taxi cooperative or company.

The four cities which have retained a fully-deregulated system are among the smallest of the cities that had initially implemented full deregulation. These cities include: (1) Berkeley, California; (2) Spokane, Washington; (3) Tacoma, Washington; and (4) Springfield, Illinois.

* * * * *

In retrospect, the effects of taxi deregulation have ranged from benign to adverse, depending on local conditions and markets. There appears to be scant evidence that deregulation fully achieved the goals on which its implementation was premised, though some goals clearly were achieved (e.g., more taxis, less regulatory involvement by government). Market imperfections peculiar to the taxi industry, including unusual product supply (e.g., first-in, first-out queues at cabstands) and consumers' lack of knowledge of taxi price and quality, tend to negate the improvement in price and performance associated with deregulation in other industries.

APPENDICES

A: Current & Historical Regulatory Changes in Deregulated Cities

B: Comparative Price and Supply Statistics

Bibliography

APPENDIX A:

Current & Historical Regulatory Changes in Deregulated Cities

MAJOR CHANGES IN TAXICAB REGULATION

Code[1]	City	Type	Initial Regulation	Date	New Regulation	Current Regulation	-Supply -Price[2]
	Anchorage, AK (*)	entry fares	population ratio (1:1500) government-set	1982 1983	conv & necess/ceiling (158) maximum fare	same same	158 $9.50
O	Atlanta, GA	entry fares	predetermined ceiling	1965	open entry		
R	>>re-regulation	entry fares	open entry	1981	predetermined ceiling government-set	same same	1,582 $7.30
O	Berkeley, CA	entry fares	predetermined ceiling government-set	1980	open entry industry-set	same same	N/A $11.80
	Charlotte, NC	entry fares	convenience and necessity government-set	1982	franchise/conv & necess industry-set	same same	N/A N/A
	Des Plaines, IL	entry fares	government-set	1981	convenience & necessity industry-set	same same	31 $7.00
	El Paso, TX	entry fares	franchise system government-set	1981 1987	convenience and necessity government-set (raised)	conv & necess/ceil (250) same	275 $8.70
O	Fresno	entry fares	N/A N/A	1979	open entry industry-set		
R	>>re-regulation	entry fares	open entry industry-set	1982	minimum standards maximum fares	same same	N/A N/A
O	Indianapolis, IN	entry fares	population ratio	1973	open entry		
R	>>re-regulation	entry fares	open entry	1974	predetermined ceiling (600)	conv & necess government-set	392 $8.15
M	Jacksonville, FL	entry fares	convenience and necessity government-set	1983	minimum standards maximum fares	same same	400 $7.25
M	Kansas City, MO	entry fares	predetermined ceil (532) government-set	1984 1983	minimum stds industry-set	same 1986 - max fares (wtd avg)	458 $8.41

MAJOR CHANGES IN TAXICAB REGULATION

Code[1]	City	Type	Initial Regulation	Date	New Regulation	Current Regulation	-Supply -Price[2]
M	Madison, WI	entry fares	population ratio government-set	1979 1982	min. standards / franchise industry-set	same same	150 $8.40
O	Milwaukee, WI	entry fares	population ratio	1979	open entry		
R	>>re-regulation	entry fares	open entry	1992	predetermined ceiling (324)	same government-set	324 $7.50
	Norfolk, VA	entry fares	predetermined ceiling	1982	convenience and necessity		
	>>re-regulation	entry fares	convenience and necessity	1985	predetermined ceiling (234)	same government-set	234 $6.85
O	Oakland, CA	entry fares	convenience and necessity	1979	open entry		
R	>>re-regulation	entry fares	open entry (600)	1988	predetermined ceiling (318)	same government-set	318 $11.80
	Orlando, FL	entry fares	predetermined ceiling (127)	1981	predetermined ceiling (220)	1988 - pop ratio / formula (272) government-set	272 $8.05
O	Phoenix, AZ	entry fares	state-regulated entry government-set	1982	open entry N/A	same N/A	
M	Portland, OR	entry fares	population ratio	1979	min. standards / ceiling maximum fares	same same	N/A $8.00
O	Sacramento, CA	entry fares	population ratio (123)	1982	open entry	same	197 N/A

MAJOR CHANGES IN TAXICAB REGULATION

Code[1]	City	Type	Initial Regulation	Date	New Regulation	Current Regulation	-Supply -Price[2]
O	San Diego, CA	entry fares	conv & necess / pop ratio government-set	1979	open entry maximum fares		
R	>>re-regulation	entry fares	open entry	1982	closed entry (permit freeze)	N/A N/A	N/A N/A
O	Seattle, WA	entry fares	population ratio government-set	1979	open entry industry-set		
R	>>re-regulation	entry fares	open entry	1984	predetermined ceiling	same N/A	N/A N/A
O	Spokane, WA	entry fares	population ratio government-set	1980	open entry industry-set	same same	N/A N/A
O	Springfield, OH	entry fares	N/A government-set	1981	open entry industry-set	same same	10 $8.00
O	Tacoma, WA	entry fares	population ratio government-set	1981	open entry industry-set	same same	79 N/A
	Tampa, FL	entry fares	population ratio (1:1000) government-set	N/A	population ratio (1:2000) maximum fares	same same	N/A N/A
M	Tucson, AZ	entry fares	state-regulated government-set	1982	minimum standards industry-set	same same	N/A N/A

1. Codes: O = an open entry city; R = re-regulation of an open entry city; M = a minimum standards city.

2. Current number of cabs and five-mile fare. From telephone interviews with city officials, September 1993.

APPENDIX B:

Comparative Price and Supply Statistics

COMPARISON OF TAXI PRICE AND SUPPLY IN DEREGULATED, REREGULATED, AND REGULATED CITIES

Category/Cities	5-Mile Fare			Taxis per 1K pop		Population		Number of Taxis	
	1985	1985(92$)	1992	1985	1992	1985	1992	1985	1992
Deregulated Cities									
Fresno	$9.20	$10.79	$9.70	0.24	0.15	268	401	63	62
Kansas City	$6.20	$7.27	$7.50	1.19	1.30	444	431	530	560
Madison	$5.83	$6.83	$8.40	0.42	0.52	168	204	70	107
Phoenix	$6.70	$7.86	$7.22	0.39	0.49	833	1043	325	506
Portland	$6.80	$7.98	$8.20	0.67	0.98	365	367	244	360
Sacramento	$7.00	$8.21	$9.94	0.77	0.55	294	401	225	219
Tampa	$5.75	$6.75	$8.15	1.20	0.89	285	450	343	400
Tucson	$6.40	$7.51	$7.80	0.35	0.19	371	425	130	80
Average	$6.73	$7.90	$8.36	0.65	0.63	379	465	241	287
Median	$6.55	$7.68	$8.18	0.54	0.54	330	413	235	290
Maximum	$9.20	$10.79	$9.94	1.20	1.30	833	1,043	530	560
Minimum	$5.75	$6.75	$7.22	0.24	0.15	168	204	63	62
Re-Regulated Cities									
Atlanta	$5.80	$6.80	$7.30	3.39	4.30	428	368	1,450	1,582
Indianapolis	$4.70	$5.51	$8.15	0.52	0.52	706	757	366	394
Milwaukee	$5.75	$6.75	$7.50	0.66	0.61	608	657	400	400
Oakland	$7.00	$8.21	$9.40	1.29	1.16	349	388	450	450
San Diego	$8.00	$9.38	$9.00	0.99	0.78	931	1,151	920	900
Seattle	$6.80	$7.98	$8.00	1.15	1.32	490	530	562	700
Average	$6.34	$7.44	$8.23	1.33	1.45	585	642	691	738
Median	$6.30	$7.39	$8.08	1.07	0.97	549	594	506	575
Maximum	$8.00	$9.38	$9.40	3.39	4.30	931	1,151	1,450	1,582
Minimum	$4.70	$5.51	$7.30	0.52	0.52	349	368	366	394
excluding Atlanta									
Average	$6.45	$7.57	$8.41	0.92	0.88	617	697	540	569
Median	$6.80	$7.98	$8.15	0.99	0.78	608	657	450	450
Maximum	$8.00	$9.38	$9.40	1.29	1.32	931	1,151	920	900
Minimum	$4.70	$5.51	$7.50	0.52	0.52	349	388	366	394
Regulated Cities									
Arlington	$5.80	$6.80	$8.30	3.05	3.46	152	175	464	605
Augusta	$4.30	$5.04	$6.40	0.46	0.58	240	240	110	140
Baltimore	$4.80	$5.63	$6.30	1.41	1.60	769	721	1,085	1,151
Boston	$6.70	$7.86	$9.10	2.68	2.67	569	571	1,525	1,525
Buffalo	$6.15	$7.21	$8.75	1.08	1.06	346	343	375	365
Las Vegas	$8.50	$9.97	$9.00	2.53	1.87	179	306	453	573
Memphis	$5.35	$6.28	$6.65	0.40	0.52	646	576	256	300
Mobile	$5.20	$6.10	$7.15	0.24	0.27	205	184	50	50
New Orleans	$5.90	$6.92	$5.90	2.87	3.48	561	462	1,608	1,608
Orlando	$5.60	$6.57	$6.91	1.67	1.21	133	182	222	220
Pittsburgh	$7.80	$9.15	$8.17	1.22	0.82	410	365	500	300
Rochester	$6.90	$8.09	$8.20	1.10	1.26	246	234	270	295
San Antonio	$6.20	$7.27	$6.90	0.57	0.81	846	931	481	750
San Jose	$6.40	$7.51	$10.60	0.22	0.33	673	826	150	270
Tulsa	$5.35	$6.28	$7.25	0.52	0.60	375	366	196	219
Average	$6.06	$7.11	$7.71	1.33	1.37	423	432	516	558
Median	$5.90	$6.92	$7.25	1.10	1.06	375	365	375	300
Maximum	$8.50	$9.97	$10.60	3.05	3.48	846	931	1,608	1,608
Minimum	$4.30	$5.04	$5.90	0.22	0.27	133	175	50	50

Note: several deregulated and re-regulated cities are omitted due to incomplete data for 1985 or 1992.

Deregulated cities include those using minimum standards, as well as open entry.

Sources

Fares & taxis:

Derived from International Taxicab and Livery Association member surveys for 1985 and 1992.

Data for Phoenix were obtained via interviews conducted by Price Waterhouse.

1985 fares were converted to 1992 dollars based on the CPI for private transportation costs (USDOL, Bureau of Labor Statistics)

Population:

Estimated from US Census. 1985 population was interpolated from 1984 and 1986 Census estimates.

1992 population was extrapolated based on growth rate between 1988 and 1990 Census estimates.

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PAUL STEPHEN DEMPSEY

VOLUME 24 • NUMBER 1 • SUMMER 1996

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TABLE OF CONTENTS

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The author would like to thank Greg Hall, John Joiner & Sam Scinta, J.D. candidates, University of Denver, for their assistance in the preparation of this article.

I. Introduction

During the last fifteen years, Congress has deregulated, wholly or partly, a number of infrastructure industries, including most modes of transport—airlines, motor carriers, railroads, and intercity bus compa-

nies.[1] Deregulation emerged in a comprehensive ideological movement which abhorred governmental pricing and entry controls as manifestly causing waste and inefficiency, while denying consumers the range of price and service options they desire.[2]

In a nation dedicated to free market capitalism, governmental restraints on the freedom to enter into a business or allowing the competitive market to set the price seem fundamentally at odds with immutable notions of economic liberty. While in the late 19th and early 20th Century, market failure gave birth to economic regulation of infrastructure industries, today, we live in an era where the conventional wisdom is that government can do little good and the market can do little wrong.[3]

Despite this passionate and powerful contemporary political/economic ideological movement, one mode of transportation has come full circle from regulation, through deregulation, and back again to re-regulation—the taxi industry. American cities began regulating local taxi firms in the 1920s. Beginning a half century later, more than 20 cities, most located in the Sunbelt, totally or partially deregulated their taxi companies. However, the experience with taxicab deregulation was so profoundly unsatisfactory that virtually every city that embraced it has since jettisoned it in favor of resumed economic regulation.

Today, nearly all large and medium-sized communities regulate their local taxicab companies. Typically, regulation of taxicabs involves: (1) limited entry (restricting the number of firms, and/or the ratio of taxis to population), usually under a standard of "public convenience and necessity," [PC&N] (2) just, reasonable, and nondiscriminatory fares, (3) service standards (e.g., vehicular and driver safety standards, as well as a common carrier obligation of nondiscriminatory service, 24-hour radio

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1. Such legislation includes the Air Cargo Deregulation Act of 1977, the Airline Deregulation Act of 1978, the International Air Transportation Competition Act of 1979, the Staggers Rail Act of 1980, the Motor Carrier Act of 1980, the Household Goods Transportation Act of 1980, the Bus Regulatory Reform Act of 1982, the Civil Aeronautics Board Sunset Act of 1984, the Surface Freight Forwarder Deregulation Act of 1986, the Negotiated Rates Act of 1993, the Trucking Industry Regulatory Reform Act of 1994, and Title VI of the Federal Aviation Act of 1994. *See generally*, PAUL DEMPSEY & WILLIAM THOMS, LAW & ECONOMIC REGULATION IN TRANSPORTATION (1986), and PAUL DEMPSEY, ROBERT HARDAWAY & WILLIAM THOMS, AVIATION LAW & REGULATION (1993). Note however, that although the U.S. Congress has preempted much of state and local regulation of the airline, railroad, and trucking industries, economic regulation of the surface passenger transportation industry has remained largely untouched by federal preemption.

2. *See, e.g.*, PAUL DEMPSEY, THE SOCIAL & ECONOMIC CONSEQUENCES OF DEREGULATION (1989); PAUL DEMPSEY & ANDREW GOETZ, AIRLINE DEREGULATION & LAISSEZ FAIRE MYTHOLOGY (1992).

3. *See generally* Paul Dempsey, *Market Failure and Regulatory Failure As Catalysts for Political Change: The Choice Between Imperfect Regulation and Imperfect Regulation*, 46 WASH. & LEE L. REV. 1 (1989).

dispatch capability, and a minimum level of response time), and (4) financial responsibility standards (e.g., insurance).[4]

This article explores the legal, historical, economic, and philosophical bases of regulation and deregulation in the taxi industry, as well as the empirical results of taxi deregulation. The paradoxical metamorphosis from regulation, to deregulation, and back again, to regulation is an interesting case study of the collision of economic theory an ideology, with empirical reality. We begin with a look at the historical origins of taxi regulation.

II. Historical Antecedents of Modern Taxicab Regulation

Hackneys (horse drawn coaches for hire), the predecessors of today's taxicabs, were regulated shortly after they appeared on the streets of London and Paris between 1600 and 1620.[5] In 1635, Charles I ordered that London hackneys be licensed so as "to restrain the multitude and promiscuous use of coaches."[6] Nineteen years later the British Parliament adopted a regulatory regime which limited the number of hackneys.[7]

In the United States, governmental regulation of private firms, rather than public ownership, has been deemed the appropriate means of protecting the public interest in economically viable modes of transportation.[8] Although some attribute comprehensive regulation of taxicabs to the Great Depression, in fact, regulation began in earnest during the 1920s.[9] In the 1930s, the growth in unemployment and unsold

4. *See* Michael Kemp, *Taxicab Service*, in Para-Transit: Neglected Options for Urban Mobility 64 (Urban Institute 1984); Dempsey & Thoms, *supra* note 1, at 1; Roger Teal & Mary Berglund, The Impacts of Taxicab Deregulation in the USA, J. Transp. Econ. & Pol'y 37 (Jan. 1987).

5. David Williams, *Information and Price Determination in Taxi Markets*, 20 Q. Rev. of Econ. & Bus. 36 (1981). Actually, common carrier liability owes its origins to Roman Law, beginning about the year 200 B.C. *See* Dempsey & Thoms, *supra* note 1, at 2.

6. U.S. Dep't of Transp., Taxicab Regulation in U.S. Cities 5 (1983).

7. *Id.* at 6. The London Hackney Carriage Act of 1831 (as amended in 1843) was the first comprehensive taxicab regulation ordinance; Gene Stalians, *Regulatory Revision and the Taxicab Industry: What We Have Learned* 1, Address before the 50th Annual Convention of the New Zealand Taxi Proprietors' Federation, Wellington, New Zealand, Aug. 30, 1988.

8. William Barker & Mary Beard, Urban Taxicabs: Problems, Potential, and Planning, in Proceedings of the Conference on Taxis As Public Transit 40 (Univ. of California, 1978). Modes of transport which were not economically viable in the market (e.g., urban railways, Amtrak and the U.S. Postal Service) were provided by government in a process John Kenneth Galbraith is said to have referred to as "Lemon Socialism."

9. Mark Frankena & Paul Pautler, An Economic Analysis of Taxicab Regulation 75 (Fed. Trade Comm., 1984); *See* Kemp, *supra* note 4, at 65. "The campaigns of professional cab associations for vehicle licensing during the late 1920s were a direct response to the disruption in the market created by hit-and-run entrants."; *see also* Edward Gallick & David Sisk, *A Reconsideration of Taxi Regulation*, 3 J.L. Econ. & Org. 117, 123 (1987).

automobiles produced a drastic increase in the number of taxicabs.[10] While fewer people could afford to ride a taxi, the number of taxicabs skyrocketed, while occupancy rates and revenue per taxi declined.[11] Capacity and demand were moving in opposite directions.

An editorial published by the *Washington Post* in January 1933 illustrates the public's perception of the chaotic state in which the taxicab industry found itself:

> Cut-throat competition in a business of this kind always produces chaos. Drivers are working as long as sixteen hours per day, in their desperate efforts to eke out a living. Cabs are allowed to go unrepaired. . . .
>
> Together with the rise in the accident rate there has been a sharp decline in the financial responsibility of taxicab operators. Too frequently the victims of taxicab accidents must bear the loss because the operator has no resources of his own and no liability insurance. There is no excuse for a city exposing its people to such dangers.[12]

Economists of the era argued that taxis were a declining cost industry; excessive competition between numerous small operators decreased carrier efficiency and increased consumer costs.[13] The U.S. Department of Transportation also summarized the tenor of the times:

> The excess supply of taxis led to fare wars, extortion, and a lack of insurance and financial responsibility among operators and drivers. Public officials and the press in cities across the country cried out for public control over the taxi industry.
>
> The response was municipal control over fares, licenses, insurance and other aspects of taxi service.[14]

III. Contemporary Statutory and Regulatory Criteria Governing the Taxi Industry

Virtually all municipalities engage in taxi industry regulation under state legislation requiring or permitting such regulation, which itself acts under the guise of the state's police power. Although sometimes challenged as unconstitutional on various grounds, or preempted by federal law, these statutes and municipal ordinances have been nearly universally

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10. *See* Gorman Gilbert & Robert Samuels, The Taxicab: An Urban Transportation Survivor 149 (1982).

11. Frankena & Pautler, *supra* note 9, at 75.

12. *Taxicab Chaos*, Wash. Post, Jan. 25, 1933, editorial page.

13. Sandra Rosenbloom, *The Taxi in the Urban Transport System*, The Private Challenge to Public Transportation (Charles Lave, ed., 1984). Similar arguments were made in the 1920s and 1930s in favor of regulating the trucking industry. *See* Paul Dempsey, *Running On Empty: Trucking Deregulation and Economic Theory*, 43 Admin. L. Rev. 253, 304-306 (1991).

14. U.S. Dep't of Transp., *supra* note 6, at 6-7.

upheld.[15]

Typically, taxis are regulated at the local level, with city or county boards restricting the number of firms and number of taxis (with the issuance of medallions), and setting prices (usually on a mileage basis), safety, insurance and service standards. Their decisions are given extreme deference by reviewing courts. In this section, several of the approaches to economic regulation of taxis in some of the nation's major cities are examined. As we shall see, their similarities are far more numerous than their differences.

A. New York

The state of New York permits its municipalities to adopt ordinances which require the registration and licensing of taxicabs.[16] New York municipalities may also establish restrictions concerning parking and passenger pick-up and discharges.[17] Jurisdiction to promulgate rules and regulations concerning the supervision and operation of taxis has been vested in the Police Commissioner.[18] Typically, the municipal ordinances require that taxis be insured for specific amounts.[19]

New York City has regulated its taxis since the 1930s. Medallions were limited to 11,787 in 1937,[20] causing the medallion price to reach exorbitant levels, itself generating some measure of legitimate criticism of taxi regulation.

B. Los Angeles

In contrast to New York, which permits municipalities to enact taxi regulations, the Texas and California state statutes require municipalities to regulate the local taxi industry.[21] These municipalities may enact ordinances which regulate entry, such as "controls, limits or other restrictions

15. *See e.g.*, Golden State Transit Corp. v. City of Los Angeles 726 F.2d 1430 (D.C. Cir. 1983), *cert. denied*, 105 S. Ct. 1865 (1983). Here, a municipality's taxicab regulation survived scrutiny under the Sherman Act, as it fell under the "state action" exemption to that legislation. Although Title VI of the Federal Aviation Act of 1994 preempted intrastate regulation of motor carriers of property, it did not preempt intrastate regulation of the transportation of passengers. The Bus Regulatory Reform Act of 1982, although providing for Interstate Commerce Commission review of intrastate entry, exit and rate regulation, did not apply to the taxi industry. *See also* Rudack v. Valentine, 295 N.Y.S. 976 (1937) (taxi statute unsuccessfully challenged on grounds that it violated claimant's due process rights).

16. N.Y. Gen. Mun. § 181(1).

17. *Id.*

18. *See* Teuch v. Murphy, 256 N.Y.S.2d 25 (1965).

19. *See* Foley v. McKnealley, 325 N.Y.S.2d 165 (1971).

20. Peter Suzuki, *Unregulated Taxicabs*, 49 Transp. Q. 129, 132 (1995).

21. California's statute is typical:

> [E]very city or county shall protect the public health, safety, and welfare by adopting an ordinance or resolution in regard to taxicab transportation service rendered in

on the total number of persons providing the services, rates, safety and insurance requirements" and other requirements which will "ensure safe and reliable passenger transportation service."[22]

The city of Los Angeles requires an applicant to prove "public convenience and necessity" in order to gain entry into the taxicab industry, with entry, rates and business practices governed by the Los Angeles Board of Transportation Commissioners.[23] In evaluating the PC&N criterion, the Board may consider the applicant's financial capability, evidence that existing taxicabs "are not, under efficient management, earning a fair and reasonable return on their capital devoted to such service . . .", that existing taxicabs ". . . are or are not, under normal conditions, adequately serving the public . . .", and ". . . whether existing services are meeting the need or demand."[24]

The Los Angeles ordinance includes the typical requirements of insurance,[25] an approved identification system of color and signage,[26] meters,[27] rate regulation,[28] a requirement that the driver take the most direct route[29] and not charge more than the prescribed fare,[30] and describes the circumstances under which a driver or vehicle permit may be temporarily or permanently suspended or revoked.[31] The rules adopted by the Board of Transportation Commissioners include precise safety regulations (including maximum age of vehicles, inspection, maintenance, repair, seat belt and other requirements), cleanliness of vehicle, courtesy and honesty of driver, and common carrier service obligations.[32]

C. Houston

The licensing of new entrants under the Houston municipal Code requires a hearing by the city Department of Finance and Administration

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vehicles for carrying not more than eight persons, excluding the driver, which is operated within the jurisdiction of the city or county. . . ."

Cal. Gov't Code § 53075.5 (West Supp. 1996). The California Public Utilities Commission may not regulate the local taxi industry if it is already licensed and regulated by the city. People v. San Francisco, 155 Cal. Rptr. 319 (1979). Texas requires the municipality to regulate not only the area within its jurisdiction, but also jointly owned municipal property and property "in which the municipality possesses an ownership interest." Tex. Local Gov't. § 215.004 (West 1995)

22. Tex. Local Gov't Code Ann. § 215.004 (West 1995).
23. Los Angeles Mun. Code, ch. VII, art. 1, §§ 71.00, 71.12.
24. *Id.* § 71.13.
25. *Id.* § 71.14.
26. *Id.* §§ 71.16, 71.19, 71.20, 71.21.
27. *Id.* § 71.22.
28. *Id.* § 71.25.
29. *Id.* § 71.23.
30. *Id.* § 71.24.
31. *Id.* §§ 71.01 - 71.10.
32. Dept. of Transp., City of Los Angeles, Taxicab Rules and Regulations of the Board of Transp. Comm'n (1991).

under a "public convenience and necessity" standard, in which applications are denied unless the applicants are able to prove, by clear and convincing evidence, that the standard is met.[33] In assessing the PC&N standard, the director of the Department must evaluate the number of vehicles to be operated, the effect of new entry on traffic congestion (vehicular and pedestrian), the number of permits in operation, the impact on existing permit holders, and "any other facts the director may deem relevant."[34]

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33. HOUSTON, TEX., CODE OF ORDINANCES § 46-66 (1968). The Houston Code requires all applications for the $400 taxicab permits to be filed in January of even-numbered years for a hearing the following month. Ordinance 93-155 of the City of Houston amended § 46-64 of the Houston Code, requiring taxicab permit hearings to be held in even-numbered calendar years, where previous hearing were conducted annually. The director of the department of finance and administration conducts the hearings under a "public convenience and necessity standard" in which all applicants are denied unless they are able to provide clear and convincing evidence that the standard is met. HOUSTON, TEX., CODE OF ORDINANCES § 46-66 (1968). However, the director retains absolute discretion in determining whether public convenience and necessity requires the issuance of additional permits, since Houston ordinances require the director to consider not only enumerated factors such as effects on traffic congestion, the number of existing permits in operation, and potential economic impact on existing permit holders, but also "any other facts the director may deem relevant." The Houston Code § 46-66 provides in part:

> In determining whether public convenience and necessity require the issuance of the taxicab permit to the application, the director shall take into consideration:
> (3) Number of vehicles to be operated.
> . . . .
> (6) The effect of additional vehicles upon the traffic congestion, vehicular and pedestrian alike.
> . . . .
> (10) The total number of taxicab permits in operation.
> (11) Whether the requirements of public convenience and necessity can be met and complied with only by the issuance of additional permits.
> (12) The resulting effect upon the business of existing permit holders and upon existing agencies of mass transportation in the city.
> (13) Any other facts the director may deem relevant.

34. The taxicab business in Houston, Texas, has traditionally been controlled by Yellow Cab company, which prior to 1993 held almost 70% of the 2,098 annual permits issued by the City of Houston. *Cab Deregulation Draws Praise, Criticism*, HOUSTON POST, Sept. 13, 1993. In September, 1993, The Houston City Council voted to award 49 new taxicab permits, predominantly to smaller cab companies, in an effort to respond to a rosier economic outlook and a perceived need for more competition in the industry. The partial deregulation by the City Council signaled a new approach by the Regulatory Affairs Office of the City of Houston in allowing an increase in the number of permits, an action which was vigorously opposed by Yellow Cab. In addition to the increase in the number of taxicab permits in Houston, the city increased the taxi fares slightly from $1.50 for the first 2/11 mile and $0.30 for each additional 11/45 mile to $1.50 for the first 1/9 mile and $0.30 for each additional 2/9 mile, while eliminating a provision providing a maximum per-cab fare for trips within the downtown area. HOUSTON, TEX., ORDINANCE § 93-9 (1993). Flat rates to Houston Intercontinental Airport (IAH) and maximum waiting time charges also increased under the amended ordinance, so while Houston has increased the level of taxicab competition by allowing easier entry, it appears that pricing controls will remain in effect to prevent fare wars among the larger taxi fleet.

Despite Houston's relaxation of entry, the city retains firm control of the taxicab routes

D. CHICAGO

The Municipal Code of Chicago provides a system of strict regulation of license acquisition and fare setting.[35] The code is typical of the entry criteria imposed by most cities on the taxi industry. It requires that new entry be permitted only where consistent with the "public convenience and necessity", which is to be determined with an evaluation of public demand, safety, the economic impact on competitors, and the wages, hours and conditions of drivers.[36]

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between the city and its two major airports, IAH and William P. Hobby Airport (HOU). Any taxicab departing either airport with passengers is required to pay a flat fee to cover the city's administrative and related expenses, and pricing to and from IAH is controlled by a flat rate scheme based on the division of the city of Houston into seven zones. Taxicab standing queues have been established at IAH, limiting passenger pick up to only those cabs that are operating under a valid city permit, and eligible cabs may receive a priority reassignment (thereby moving to the front of the queue) if the taxicab returns to the departure zone within forty-five minutes of its previous departure. HOUSTON, TEX., CODE OF ORDINANCES § 46-26 (1968). Although the city of Houston continues to regulate the lucrative airport routes, and general meter pricing, it remains to be seen what effect relaxed entry standards will have on Houston's taxicab business. One Houston City Councilman has suggested that relaxed entry has signaled the death knell of regulation. *Cab Deregulation Draws Praise, Criticism*, HOUSTON POST, Sept. 13, 1993. City Councilman Frank Mancuso is quoted as saying: "In my opinion, we no longer regulate cabs. It's that simple. Everybody and anybody is going to be out there now. It doesn't bode well to lose complete control like that."

35. CHICAGO, ILL., MUN. CODE, ch. 4-348-040 (1956):

> In determining whether public convenience and necessity require additional taxicab service, due consideration shall be given to the following:
> 1. The public demand for taxicab service;
> 2. The effect of an increase in the number of taxicabs on the safety of existing vehicular and pedestrian traffic;
> 3. The effect of increased competition;
> a. On revenues of taxicab operators;
> b. On the cost of rendering taxicab service, including provisions for proper reserves and a fair return on investment in property devoted to such service;
> c. On the wages or compensation, hours and conditions of service of taxicab chauffeurs;
> 4. The effect of a reduction, if any, in the level of net revenues to taxicab operators on reasonable rates of fare for taxicab service;
> 5. Any other facts which the commissioner may deem relevant.
>
> If the commissioner shall report that public convenience and necessity require additional taxicab service, the council, by ordinance, may fix the maximum number of taxicab licenses to be issued, not to exceed the number recommended by the commissioner.

36. CHICAGO, ILL., MUN. CODE, ch. 4-348 (1956). In 1960, the public vehicle license commissioner of Chicago was granted authority to issue additional taxicab licenses up to a maximum of 4,600, increasing the prior limitation of 3,761 medallions. Under the municipal code, the commissioner was required to report a finding of "public convenience and necessity" based on public demand, traffic safety considerations, industry competition effects, and commissioner discretion, before licenses could be increased up to the 4,600 ceiling. Over the last twenty-five years, taxicab medallions were predominantly in the hands of the two largest cab companies, Checker Taxi Company and Yellow Cab Company. These two companies controlled 80% of the Chicago licenses, prompting the Chicago City Council to propose the issuance of 1,500 additional licenses in 1988, to be distributed over a three year period, with open entry slated for 1991. Faced with

E. St. Louis

The St. Louis city ordinance is also typical of those governing the taxi industry. It establishes a Board of Public Service to issue certificates of PC&N, determined on the basis of:

> [W]hether the demands of the public require the proposed or additional taxicab service within the City; that existing taxicab service is not sufficient to properly meet the needs of the public; the financial responsibility of the applicant; the number, kind, type of equipment and color scheme proposed to be used; the increased traffic congestion and demand for increased parking space upon the streets of the city which may result, and whether the safe use of the streets by the public, both vehicular and pedestrian, will be preserved by the granting of the additional license; and other relevant facts as the Board may deem advisable or necessary.[37]

Vehicles must be painted in distinctive colors[38] and must be "in a thoroughly safe condition for the transportation of passengers, clean, fit, of good appearance and well painted."[39] Taxis must be equipped with posted fares and taximeters, with fare schedules filed with and approved

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the prospect of rapid deregulation, Checker and Yellow Cab forged an agreement with the City of Chicago, providing an increase in medallions of 1,100, coupled with the relinquishing of 1,300 medallions by Checker and Yellow Cab for reassignment, over a ten year period. Ann Marie Lipinshki & Jane Tanner, *Taxi Deal Gets Council's O.K After a Battle Royal,* Chi. Trib., Jan. 28, 1988, at C1, C2. The new and relinquished licenses are awarded to independent drivers by lottery, whose market share will increase to 59% by 1998.

Chicago's movement toward liberalized entry will particularly impact medallion owners, who received $20,000 on the open market for a medallion in 1988. With each issuance of a medallion through the lottery, the medallion value drops, as lottery winners are able to limit their taxicab license investment to $250. The Chicago agreement may also affect taxicab fare regulation, in which the Chicago City Council has been traditionally hesitant to increase fares. Despite rate increases of roughly 30% in March, 1990, Chicago's rates were significantly lower than those of other major U.S cities. *See* James Strong, *Time to Dig Deeper for Taxi Rides,* Chi. Trib., Mar. 9, 1990, at C4, C5. Rate increases made by the City of Chicago in 1991 were the first since 1981. Jerry Feldman, the president of Checker Taxi Company, Inc., testified before a City Council hearing in 1991 that a three-mile taxi ride in Chicago which costs $3.60 would be at least $6.50 in Los Angeles, $5.50 in Philadelphia, and $4.60 in New York City.

Within three years, the City of Chicago survived a challenge to its deregulation scheme when Checker and Yellow Cab were determined to have violated the 1988 ordinance by setting up "sham companies" which financed the purchase of licenses for drivers in return for the driver putting the medallion up for collateral. P. Davis Szymaczak, *City Gets Rare Victory Over Cab Companies,* Chi. Trib., May 24, 1991, at C2. If the driver defaulted on the financing, the medallion passed to the cab company, effectively circumventing the city's goal of limiting the market share of Checker and Yellow Cab. Although the City of Chicago was able to keep the move to liberalized entry alive, given the resistance by the large taxicab companies in Chicago, it is unclear whether the market will be open in 1988, or whether the City will forge another limited regulation agreement.

37. St. Louis, Mo., Ordinances 58795, § 8.98.023.

38. *Id.* § 8.98.113.

39. *Id.* § 8.98.101.

by the Board of Public Service.[40] To ensure compliance, vehicles shall be inspected annually.[41] Liability insurance must be maintained.[42] To eliminate conflict between drivers, specific rules of conduct apply at taxi stands:

> Taxicab drivers entering a taxicab stand shall do so from the rear, and shall progress toward the front thereof whenever the opportunity to do so is present. The driver in the foremost position shall be entitled to serve the first customer arriving at that location, provided, however, that should the customer elect to employ any other taxicab, he shall have a free choice thereof at all times.[43]

A common carrier obligation is imposed on drivers to accept all potential patrons, except service "to anyone who is intoxicated or may present a personal safety hazard, and . . . any person in furtherance of any unlawful purpose."[44]

F. Boston

Legislation promulgated by the Massachusetts legislature in the 1930s gave the police commissioner of Boston the power to authorize not more than 1,525 taxis to "suitable persons, firms and corporations who are owners of vehicles known as hackney carriages . . ."[45] Regulations promulgated by the Boston Police Commissioner call for a $10 fee for a hackney carriage license, and a $2 fee for a hackney driver's license, probably the lowest such fees in the nation.[46] Nonetheless, because of the limited number of medallions issued, the market price for an existing medallion has approached $90,000 in recent years.[47]

In 1989, metered fares were increased 19%, raising the fare for a two-mile trip from $3.50 to $4.30.[48] Boston Police regulations also call for annual vehicle inspections,[49] a card displaying rates in the rear compartment of the taxicab,[50] etiquette in taxi stands,[51] appropriate driver ap-

40. *Id.* §§ 8.98.107, 305.
41. *Id.* §§ 8.98.155-167.
42. *Id.* §§ 8.98.172-173, 185-186.
43. *Id.* § 8.98.425.
44. *Id.* § 8.98.449.
45. Acts of 1930, ch. 392, § 4.
46. *See* City of Boston, Rules and Regulations Established by the Police Commissioner for the City of Boston for Hackney Carriages and Hackney Stands in Accordance with Chapter 392 of the Acts of 1930, as *amended*, §§ 2, 4. *See also*, City of Boston, Hackney Carriage Training Manual.
47. Suzuki, *supra* note 20, at 130.
48. Mark Muro, *Roache to Boston Cab Drivers: Take a Hike*, Boston Globe, July 29, 1989, at 18.
49. City of Boston, *supra* note 46, § 7.
50. *Id.* §§ 8, 17.
51. *Id.* § 12.

pearance[52] and behavior,[53] including a prohibition against transporting dead bodies.[54]

G. Minneapolis

The Minneapolis Taxicab Ordinance has three purposes: (1) to achieve ". . . a better cab service for the riding public . . ."; (2) provide "greater safety and protection to the public . . ."; and (3) establish "better operating conditions for cab owners and drivers."[55] In determining whether the public convenience and necessity warrant new entry, the city council must conduct a hearing, at which the following criteria shall be considered:

> [T]he level and quality of service being provided by existing taxicab operators; whether additional competition would improve the level and quality of service or the degree of innovation in delivery of services; the impact upon the safety of vehicular and pedestrian traffic; the impact upon traffic congestion and pollution; the available taxicab stand capacity; the public need and demand for service; the impact on existing taxicab operators; and such other factors as the city council may deem relevant.[56]

The Minneapolis ordinance also specifies requirements regarding the qualifications of new entrants, requiring the city council consider:

> [T]he financial capability and responsibility of the applicant; the applicant's prior experience in the taxicab business; the level and quality of taxicab service provided by the applicant in the past in areas in which it has operated; the experience and competence of the applicant's drivers; the applicant's prior record of compliance with the taxicab ordinance including complaints and disciplinary actions against drivers and vehicle owners; the applicant's prior record of service complaints; the age and condition of the vehicles proposed to be licensed by the applicant; and such other factors as the city council may deem relevant.[57]

Drivers must be courteous,[58] assist passengers,[59] accept all paying passengers,[60] give them receipts upon request,[61] not smoke without their permission,[62] not overcharge them,[63] drive safely,[64] carry liability insur-

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52. *Id.* § 18.
53. *Id.* §§ 15, 20.
54. *Id.* § 28. It is unclear whether the taxi driver must jettison a passenger who dies in transit.
55. Minneapolis, Minn., Taxicab Ordinances ch. 341 (1993).
56. *Id.* § 341.270(a).
57. *Id.* § 341.270(b).
58. *Id.* § 341.100.
59. *Id.* § 341.110.
60. *Id.* § 341.170.
61. *Id.* § 341.200.
62. *Id.* § 341.250(d).

ance,[65] and pass a driver training course.[66] The ordinance goes so far as to prescribe the clothing drivers shall wear, prohibiting as outergarmets: "T-shirts, underwear, tank tops, swimwear, jogging suits, body shirts, shorts, cut-offs, trunks, or similar attire . . . ."[67] Licenses may be revoked or suspended for good cause after notice and hearing.[68]

H. Denver

While most city governments regulate their own taxi companies, Colorado is something of an anomaly in that the state Public Utilities Commission [PUC] regulates the taxi industry of Colorado's major cities.[69] Until 1994, entry licensing in the Colorado taxi industry was governed by the standard of "regulated monopoly";[70] beginning in 1994, it was governed by the standard of "regulated competition."[71]

Under the prior "regulated monopoly" regime, no finding of public convenience and necessity for additional common carrier authority was justified unless the applicant could demonstrate that the existing operations were substantially inadequate,[72] for "the existence of an adequate

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63. *Id.* § 341.250(n). Rates are dealt with in §§ 341.710-810.

64. *Id.* § 341.120.

65. *Id.* § 341.500.

66. *Id.* § 341.380.

67. *Id.* § 341.130.

68. *Id.* § 341.980.

69. The Colorado legislature authorized its PUC to issue certificates to motor vehicle carriers in 1917. 1917 Colo. Sess. Laws, ch. 110, § 35. In 1969, it declared common carriers to be public utilities. 1963 C.R.S. § 115-1-2(5) (Perm. Supp. 1969) *and* 1963 C.R.S. § 115-9-2 *cited in* Miller Bros., Inc. v. Pub. Util. Comm'n, 185 Colo. 414, 421, 525 P.2d 433, 445 (1974); Section 40-10-105(2), C.R.S. 1973.

70. Prior to 1967, motor common carriers of property were governed by a statutory provision restricting new entry under a standard of "regulated monopoly." In 1967, the Colorado legislature changed the standard to one of "regulated competition." *See* Denver Cleanup Serv., Inc. v. Pub. Util. Comm'n, 192 Colo. 537, 541, 561 P.2d 1252, 1254 (1977) (by changing the law, "without question [the General Assembly] intended to protect the public health, safety, and general welfare by providing a framework for the better transportation of persons or property."

71. Judicial and agency precedent interpreting the import of the parallel 1967 statutory change is instructive as to the standards to be employed in considering the parallel legislative change in 1994 by the Colorado legislature of entry standards governing taxi companies.

72. The Colorado Supreme Court observed that:

> [U]nder the policy of regulated monopoly, additional common carrier authority was not granted where adequate service was already being rendered. . . . In accordance with this theory of regulated monopoly, we have held that a common carrier serving a particular area is entitled to protection against competition so long as the offered service is adequate to satisfy the needs of the area, and no finding of public convenience and necessity for common carrier service is justified unless present service offered in the area is inadequate.

Miller Bros., Inc. v. Pub. Util. Comm'n, 185 Colo. 414, 422, 525 P.2d 433, 446 (1974). "Under [the concept of regulated monopoly] an applicant for a competing certificate was obliged to show 'substantial' inadequacy in existing services." 185 Colo. at 430, 525 P.2d at 451.

and satisfactory service by motor carriers already in the area is a negation of public need and demand for added service by another carrier."[73]

The Colorado Supreme Court held that while inadequacy of existing services may be considered by the PUC in a "regulated competition" environment, it is no longer the controlling criterion that it had been in a "regulated monopoly" regime.[74] Under the "regulated competition" standard, the controlling criterion is the "public interest" or the "public need."[75]

In its seminal decision of *C.M. Morey v. Public Utilities Commission*[76] [*Morey II*], the Colorado Supreme Court observed that the consideration of the public need for safe, adequate, dependable, efficient and reasonably priced transportation services warrants an evaluation of the impact that potential new entry may have in creating excessive or destructive competition.[77] In assessing new entry proposals for taxi service in Colorado, the issue of destructive competition is at the heart of an assessment of the public's interest in avoiding impaired transportation services or higher rates. Neither can "regulated competition" reasonably be interpreted as supporting unlimited entry.[78]

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73. Ephriam Freightways, Inc. v. Pub. Util. Comm'n, 151 Colo. 596, 380 P.2d 228 (Colo. 1963); Colo. Transp. Co. v. Pub. Util. Comm'n, 158 Colo. 136, 143, 405 P.2d 682, 686 (1965) (taxi company seeking to provide bus service failed to prove inadequacy in existing services).

74. Miller Bros., Inc. v. Pub. Util. Comm'n, 185 Colo. 414, 431-32, 525 P.2d 433, 451 (1974); C.M. Morey v. Pub. Util. Comm'n, 196 Colo. 153, 156, 582 P.2d 685, 687 (1978).

75. C.M. Morey, 196 Colo. at 157-58, 582 P.2d at 688; C.M. Morey v. Pub. Util. Comm'n, 629 P.2d 1061, 1065 (Colo. 1981) (hereinafter *Morey II*). In assessing the evidence, the public need is broader than the individual needs or preferences of an applicant's customers. In determining whether a public need exists, the PUC may consider the needs and preferences of the witnesses who testify in favor of the applicant, although they are not determinative. *Morey II*, 629 P.2d 1061, 1066 (Colo. 1981). The public need consists of the needs of the public as a whole. *Id.* at 1067.

76. *Morey II*, 629 P.2d 1061, (Colo. 1981).

77. The court held:

> As a corollary of our holding that the "public need" is broader than the individual needs and preferences of an applicant's customers, we agree than the Commission may consider the impact additional competition may have, not only on the conflicting economic interests of competing carriers, but also on the ability of existing carriers to provide their customers and the public generally with safe, efficient and economical transportation services. The obligation to safeguard the general public against the impaired services and/or higher rates accompanying destructive or excessive competition is at the heart of the policy of regulated competition.

Id. at 1066 [citations omitted]. "Because of this obligation, the PUC can require a carrier to serve unprofitable routes that are important to certain segments of the population as a condition of granting it authority to operate more lucrative routes." Durango Transp., Inc. v. Durango, 786 P.2d 428, 431 (Colo. Ct. App. 1989).

78. In *Morey II*, the Colorado Supreme Court affirmed the PUC, which denied a new application on the basis of evidence which established that:

- The market for transportation services in the affected areas was relatively inelastic;
- The operating capacities of existing common carriers were underutilized;
- The operating revenues of existing carriers were low; and

IV. The Economic Characteristics of the Taxi Industry

A. Industry Size & Structure

Taxicab companies comprise a $6.5 billion industry employing nearly 300,000 people,[79] of whom 225,000 are drivers.[80] It has been estimated that the taxicab industry transports more passengers than all U.S. mass transportation systems combined.[81]

The taxi industry is a common carrier form of urban transportation, differing from its mass transit rivals in that it is privately owned, operates over public streets on no fixed routes, and provides door-to-door (or point-to-point) service in small vehicles on behalf of, and at the direction of, individual or very small numbers of patrons.[82] Typically, the contract between the driver and passenger is informal and *ad hoc*. Where regulated, the price is usually based on the distance (and sometimes the dura-

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• Additional competition for present and prospective business would seriously impair the ability of existing carriers to continue to provide efficient and economical service to the public.

Morey II, 629 P.2d at 1066.

The Colorado Supreme Court subsequently reaffirmed each of these principles. In Trans-Western Express, Ltd. v. Pub. Util. Comm'n, 877 P.2d 350 (Colo. 1994), the Supreme Court concluded that the entry standard of "regulated competition" is to be applied as follows:

1. Under the doctrine of regulated competition, the controlling consideration is the "public need" or the "public interest." *Id.* at 353;
2. The burden of proof in establishing public need is on the applicant. *Id.*;
3. The public need is broader than the individual needs and preferences of an applicant's customers, and consists of the needs of the public as a whole. *Id.* at 354;
4. The public need is advanced by "safe, efficient, and economical transportation services." *Id.*;
5. The PUC may consider the adequacy or inadequacy of existing services in determining the public need. *Id.*;
6. The Commission may consider the impact of additional competition on the economic health of existing carriers, as well as their ability to provide the public with safe, efficient and economical service. *Id.*;
7. "Providing for the public need and regulating competition demands that some restraints be placed upon inter-carrier competition therefore avoiding destructive competition." *Id.* at 353, n.7 *citing Morey II*, 629 P.2d 1061, 1066;
8. "The doctrine of regulated competition requires the PUC to deny an application for common-carrier authority if granting the application would create 'excessive' or 'destructive' competition." *Id.* at 353; and
9. "Regulated competition is not synonymous with deregulation." *Id.* at 354 *citing Morey II* 629 P.2d at 1066-67.

79. *See* Roy Sampson, et al., Domestic Transportation: Practice, Theory, and Policy 150 (6th ed. 1990).

80. Eno Transportation Foundation, Transportation in America 62 (12th ed. 1994).

81. Rosenbloom, *supra* note 13.

82. Roger Teal, *Taxis As Public Transit*, Proceedings of the Conference on Taxis As Public Transit 3 (Univ. of California, 1978); County of San Diego Dep't of Transp., Taxicab Study 6 (1978). *See* Roy Sampson, Martin Farris & David Schrock, Domestic Transportation: Practice, Theory, and Policy 150 (6th ed. 1990).

tion) of the ride.[83] Airport vans and limousines differ in that they typically operate over fixed routes while taxicabs proceed directly to the destination designated by the patron.[84]

The taxi industry may be divided into several distinct segments:

1. Radio-Dispatched Cabs

The radio dispatched portion of the taxicab industry involves a central dispatching system whereby patrons call by telephone and cabs are summoned by radio.[85] Taxis are equipped with two-way radios, and fleets are typically larger and have centralized maintenance and repair facilities.[86] Economies of scale have been acknowledged to exist in this segment of the industry due to indivisibilities of the inputs employed in marketing, dispatching, and management, as well as the need for a sufficiently large fleet to provide adequate service within reasonable time within a designated service territory.[87] Thus, this segment of the industry is likely to be relatively concentrated.[88] In most cities, the telephone order market accounts for 70%-80% of the overall demand for taxi service.[89]

2. The Cabstand Business.

Cabstands exist with queues for both taxis and passengers at concentrated locations such as airports and hotels.

3. Cruising Cabs.

The cruising cab business consists of taxis driving along streets on which pedestrians congregate, searching for a random patron to hail them. It is profitable only in downtown urban areas of large cities where a high density of potential riders exists at random locations; the cruising cab business does not work well in cities with low density populations.[90]

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83. Kemp, *supra* note 4, at 57.

84. *Id.*

85. FRANKENA & PAUTLER, *supra* note 9, at 11-12.

86. Kemp, *supra* note 4.

87. FRANKENA & PAUTLER, *supra* note 9, at 54-55; GILBERT & SAMUELS, supra note 10, at 150 ("When revenue, and hence profit, is considered . . . it appears that larger firms do have access to significant economies of scale. First, they are more likely to be able to respond quickly to trip requests than are many small firms serving the same area independent of each other."). *See also* Teal & Berglund, *supra* note 4, at 49 ("Costs for a new entrant include radio equipment, facilities, personnel and a fleet large enough to provide responsive city-wide service where there are thought be 'economies of scope'.").

88. Teal & Berglund, *supra* note 4, at 38.

89. *Id.* at 39.

90. Chanoch Shreiber, *The Economic Reasons for Price and Entry Regulation of Taxicabs: A Rejoinder*, 15 J. TRANSP. ECON. & POL'Y 81, 82 (1981).

4. Public Contract Services.

Sometimes a public agency contracts with a taxi company to provide one of more of the following services:

> (A) traditional fixed route transit or demand-responsive services in low-density areas, or late at night, often in lieu of existing fixed-route services;
> (B) feeder services to fixed routes;
> (C) paratransit services for special target groups such as the poor, the elderly, and the handicapped:
> (D) involvement in user-side subsidy program; and
> (E) brokerage services matching travelers to the most cost-effective provider for each service.[91]

B. Industry Costs

The costs of entry into the cabstand or cruising segments of the taxi industry are exceptionally modest, consisting principally of a chauffeur's license, a down payment on a car, four re-tread tires, a few gallons of gasoline, and a couple of quarts of oil.

In the radio dispatch segment of the industry, fixed costs include the purchase price of a fleet of automobiles, depreciation, regular maintenance, the radio dispatching equipment and personnel to run it, marketing and advertising costs, insurance, driver training, and license and permit fees. Variable costs in the industry are generally a function of distance, duration and destination which consume variable rates of fuel, oil and labor.[92] Labor expenses have been estimated to constitute 50% of the cost of taxi service.[93]

Many costs are joint costs, spread over the outbound and inbound segments of the journey. A trip without dead heading enjoys two segments of revenue over which to spread both fixed and variable costs. For example, a thrity-mile passenger trip to a commercial airport enjoys a high probability of returning with a paying passenger, while a thirty-mile passenger trip to a remote suburban community has a high probability the taxi will return empty.[94] The relationship between cost and revenue of these two equivalent trips will differ significantly because of the existence or non-existence of a paying patron on the return leg of the journey.[95] In the absence of regulation, a taxi driver has a strong incentive either to refuse service to a patron seeking transportation to a remote community from which there is unlikely to be a return trip (or to charge a

91. Rosenbloom, *note 13.*
92. *See* Gallick & Sisk, *supra* note 9, at 117-8.
93. Teal & Berglund, *supra* note 4, at 49.
94. Gallick & Sisk, *supra* note 9.
95. *Id.*

price much higher, on a per-mile basis, than is charged elsewhere), and to queue for profitable trips at cabstands.[96]

Where profits are inadequate (as results for example, where entry is deregulated) the principal costs which can be trimmed are drivers' wages, vehicle maintenance, and the purchase of new equipment. However, taxi driver wage rates are already among the lowest in the labor force.[97]

C. The Passenger Market

The market for taxicab services can be divided into several distinct segments, each with its own demand characteristics:

1. The Transportation Disadvantaged.

The "transportation disadvantaged" include the elderly, unemployed, handicapped, children and low-income persons. In fact, a large proportion (perhaps most) of the users of taxicab service are persons of low income.[98] For example, a 1970 study of taxi use in Pittsburgh revealed that 58% of those who used taxis regularly did not own an automobile; 60% of the trips were made by housewives, students, or unemployed, retired or incapacitated individuals.[99] The 1975 *National Personal Transportation Study* revealed that 60% of all taxi services are provided to the transportation disadvantaged. A Federal Trade Commission study concluded that, "the low-income population spends higher shares of their income, and often simply more dollars, on taxis than does the high-income population."[100]

Hence taxis play an essential role in transporting the disadvantaged, low mobility, and lower income segments of the population.[101] The poor are particularly reliant on the radio dispatched segment of the market.[102]

2. Non-Residents.

In large cities, the market also consists of a substantial number of out-of-town business, convention or vacation visitors.[103] These travelers do have a competitive alternative in the form of rental cars, although usually at a much higher price than taxicabs.[104] Business travelers also may not be as highly sensitive to the price of taxicab service since many are on

96. *Id.* at 120.
97. Teal & Berglund, *supra* note 4, at 49.
98. *See supra* note 13.
99. Teal, *supra* note 82.
100. Frankena & Pautler, *supra* note 9, at 3.
101. See Gilbert & Samuels, *supra* note 10, at 112.
102. Frankena & Pautler, *supra* note 9, at 12.
103. *See* Teal, *supra* note 82, at 14.
104. Barker & Beard, *supra* note 8, at 44.

their company's expense accounts.[105]

3. Affluent Residents.

The wealthy are not financially burdened by the regular use of taxicabs, and enjoy the personalized nature of the service and its convenience.[106] In certain densely populated cities, particularly those in the Eastern United States, with their congested streets and limited and expensive parking, a large number of residents find a private automobile an inconvenient way to travel.

V. Market Imperfections

A. The Absence of a Competitive Market.

In the cabstand market, the "first in, first out" rule severely restricts comparative shopping by consumers.[107] In both the cabstand, and the cruising cab market, competitive shopping is impractical, and the transaction costs to prospective passengers of finding the taxi with the lowest price can be problematic.[108] One source summarized the practical problems with competitive shopping at cabstands:

> First, space on airport or hotel stands is usually severely limited and cabs not at the head of the line often do not have a safe manner in which to pull out from the queue when hired. Second, there is no way in which one cab can be made to wait while a prospective passenger goes shopping.[109]

Another observed:

> [The cab stand market] is a system that impedes price competition, because it puts drivers in a stronger position than customers. . . . Moreover, airport customers are unlikely to dicker with or refuse a cab that seems to be assigned to them, especially when they do not know local fares or know that legal fares may vary, or when they are on expense accounts and not much concerned about costs. . . .
>
> In cab lines . . . the deterioration in quality also occurs because there can be little competition on the basis of either quality or price.[110]

Given these practical difficulties, it is not at all clear that a competitive market for taxi services either exists or can be created.[111] As one

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105. Frankena & Pautler, *supra* note 9, at 129.

106. *See* Barker & Beard, *supra* note 8 at 44; Gilbert & Samuels, *supra* note 10, at 111; Sampson, et al., *supra* note 79, at 150.

107. Frankena & Pautler, *supra* note 9, at 142.

108. Gilbert & Samuels, *supra* note 10, at 151; Frankena & Pautler, *supra* note 9, at 51.

109. Gilbert & Samuels, *supra* note 10, at 152.

110. Richard Zerbe, Jr., *Seattle Taxis: Deregulation Hits a Pothole*, Reg. (Nov.-Dec. 1983), at 43, 46.

111. "Supply and demand analysis is inapplicable to the cruising taxicab market. The condi-

source observed, "It is not certain . . . that a 'market' in the pure economic sense even exists."[112] Moreover, visitors from other cities may be unaware of the prevailing price for taxicab services, or whether the passenger is protected from exorbitant pricing by a regulatory authority.[113]

Absence of a competitive market exists not only at cabstands, but in the cruising market as well. Competition in the cruising market is unlikely unless a number of taxis congregate in a single location at the same time the patron is present.[114] One commentator lamented the absence of a traditional competitive market in the taxi business, noting that time is of the essence in the procurement of taxi services:

> Commuters almost always grab the first cab that drives by, as opposed to shopping for a taxi like, say, a restaurant, where the choices are arrayed and where the business with the best or most efficient service wins. All of which means that the fruits of a free market—namely that competition allows the best to thrive and prompts the worst to go broke—are lost. Ultimately, deregulation in the cab industry provides an incentive for all involved to offer the cheapest service allowable.[115]

The spatial nature of the industry inhibits price shopping, thereby creating somewhat inelastic demand.[116] Professor Chanoch Shreiber put it best:

> Unlike other atomistic markets, a taxicab market in which cruising is the main method of operation will seldom give rise to pricing competition. In most industries sellers are at a fixed location, and customers have the ability to shop around for price and return to the seller offering the best terms. A seller can thus, by reducing his price expect to gain more business, since some customers shopping for price will switch to him from his competitors. Not so in the case of taxicabs. An individual cab operator, acting independently, cannot gain more passengers if he alone reduces his price below the going market rate.[117]

Professor Shreiber goes on to point out that because a prospective

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tions for reaching equilibrium, specified in supply and demand analysis, cannot exist in the case of taxicabs, and the point of interaction between the supply and demand for taxicab rides is not an equilibrium position." Shreiber, *supra* note 90, at 298.

112. GILBERT & SAMUELS, *supra* note 10, at 151.

113. FRANKENA & PAUTLER, *supra* note 9, at 50.

114. James Foerster & Gorman Gilbert, *Taxicab Deregulation: Economic Consequences and Regulatory Choices*, 8 TRANSP. 371, 383 (1979).

115. Christopher Georges, *D.C.'s Checkered Cabs: Why Washington's Taxis Are America's Worst*, WASHINGTON POST, Mar. 21, 1993, at C1, C2.

116. Richard Coffman, *The Economic Reasons for Price and Entry Regulation of Taxicabs: A Comment*, 9 J. TRANSP. ECON. & POL'Y 288 (1975); David Williams, *Information and Price Determination in Taxi Markets*, 20 Q. REV. ECON. & BUS. 36, 37 (1981).

117. Chanoch Shreiber, *The Economic Reasons for Price and Entry Regulation of Taxicabs*, 9 J. TRANSP. ECON. & POL'Y 268, 270 (1975).

passenger who values his or her time will not likely turn down the first available cab on the basis of price, this will have an "upward pressure on the price."[118] A consumer hailing a cab from a sidewalk has an incentive to take the first taxi encountered, because both the waiting time for the next cab and its price are unknown.[119] Paradoxically, in an open entry regime, prices tend to rise while vehicular utilization rates tend to fall.[120] Potential patrons for whom price is a determinative factor, but time is not, may take the bus, subway, or some other form of public transport, where and when it is available. However, little cross-elasticity of demand appears to exist between the taxicab and mass transit industries, for most taxi demand is time sensitive.[121]

B. Imperfect Information & Transactions Costs.

The free market competitive model assumes consumers have "perfect information." Yet consumers buying taxi service in a deregulated market often have little comparative pricing or service information, for the opportunity costs of acquiring it are high. As one source observed, "there is little incentive for price comparison for the occasional taxi user, as transaction costs (in time and effort) are high in relation to the potential savings (less than $1 for a $5 to $6 trip)."[122]

It is, quite simply, difficult for a consumer to assess the quality of transportation service at the time it is ordered, for transportation is in the nature of a "credence good"—one that cannot be examined prior to consumption.[123] A prospective patron can tell something about a taxi visually by the make and model of the automobile, as well as its dents, scrapes and paint job. But not until s/he enters the taxi will s/he know how long the trip will take or how circuitous the trip will be, how smooth and comfortable the ride will be, how knowledgeable and courteous the driver may be, and whether the price will be a fair one.

The efficient acquisition by consumers of useful information on pricing is problematic in the cab stand and cruising markets, for reasons explained above. Comparative shopping on the basis of price is difficult even if fares are posted because of the number of variables which comprise the total price—drop, mileage, wait time, baggage, and additional passenger charges.

Economist Alfred Kahn has observed several problems emerging from destructive competition, including consumers having a "limited abil-

118. *Id.* at 271.
119. Teal & Berglund, *supra* note 4, at 38.
120. Foerster & Gilbert, *supra* note 114, at 378.
121. Shreiber, *supra* note 90, at 82.
122. Teal & Berglund, *supra* note 4, at 50.
123. Dempsey & Goetz, *supra* note 2, at 276.

ity to judge the quality of products and hence to keep it at acceptable levels even when they have a wide range of competitive suppliers to choose from."[124] Given that comparative shopping by patrons for the best price/service combination is severely circumscribed by the absence of a true competitive market, regulation of prices and services can significantly reduce consumer transactions costs, thereby increasing the number and variety of taxi trips.[125]

C. Externalities.

An external effect of a transaction is the positive or negative impact upon a person not a party to it.[126] The negative externalities of taxicab service are felt by other users of finite road and highway resources, and the environment. Again, Professor Shreiber observes that "[t]axicabs impose various external costs. Mainly, they increase traffic congestion and raise the level of air pollution. . . . The price of a ride in a system of free entry will cover only the private cost. The social cost per ride, which includes the externalities, will necessarily exceed the price."[127]

It has been argued that restrictions on entry increase efficiency by reducing the street congestion and air pollution caused by an excessive number of vehicles.[128] Garrett Hardin, in his powerful essay, "The Tragedy of the Commons," provides insight as to the economic forces leading a rational wealth maximizer to advance his own economic interests by externalizing his costs:

> Picture a pasture open to all. It is to be expected that each herdsman will try to keep as many cattle as possible on the commons. Such an arrangement may work reasonably satisfactorily for centuries because tribal wars, poaching, and disease keep the numbers of both man and beast well below the carrying capacity of the land. Finally, however, comes the day of reckoning, that is, the day when the long-desired goal of social stability becomes a reality. At this point, the inherent logic of the commons remorselessly generates tragedy.
>
> As a rational being, each herdsman seeks to maximize his gain. Explicitly or implicitly, more or less consciously, he asks, "What is the utility to me of adding one more animal to my herd?" This utility has one negative and one positive component.
>
> (1) The positive component is a function of the increment of one animal.

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124. Alfred Kahn, II Economics of Regulation 176 (1971).

125. Gallick & Sisk, *supra* note 9, at 117, 119, 127.

126. Dempsey, *supra* note 3, at 17.

127. Shreiber, *supra* note 117, at 274.

128. *See* Frankena & Pautler, *supra* note 9, at 38, 42 ("[T]he operation of taxicabs on congested streets slows down other road users, increasing their time and money costs of travel."). *Id.* at 38.

> Since the herdsman receives all the proceeds from the sale of the additional animal, the positive utility is nearly +1.
>
> (2) The negative component is a function of the additional over-grazing created by one more animal. Since, however, the effects of overgrazing are shared by all the herdsmen, the negative utility for any particular decision-making herdsman is only a fraction of 1.
>
> Adding together the component partial utilities, the rational herdsman concludes that the only sensible course for him to pursue is to add another animal to his herd. And another. . . . [b]ut that is the conclusion reached by each and every rational herdsman sharing a commons. Therein lies the tragedy. Each man is locked into a system that compels him to increase his herd without limit — in a world that is limited. Ruin is the destination toward which all men rush, each pursuing his own best interest in a society that believes in the freedoms of the commons. Freedom in a commons brings ruin to all.[129]

In an environment of excessive competition created by excessively liberalized entry, the city streets are commons, the taxi companies are herdsmen, and the taxis themselves are cattle. Every additional taxi on the street brings the taxi company additional revenue (particularly where driver leasing creates an intermediate market between the taxi firm and its customers),[130] although average taxi revenue will fall for all taxis as the streets become congested with more vehicles than necessary to meet aggregate passenger demand. Since each individual taxi company has an incentive to increase the size of its fleet beyond the collectively rational level, according to Hardin, "[r]uin is the destination toward which all men rush, each pursuing his own best interest in a freedom that believes in the freedoms of the commons."[131]

As we shall see in greater detail below, excessive taxicab entry has a negative impact in terms of industry productivity and profitability. But Hardin's main thesis is not about the economic decline of herdsmen, but of the negative externality of another sort — pollution. He says:

> In a reverse way, the tragedy of the commons reappears in problems of pollution. Here it is not a question of taking something out of the commons, but of putting something in. . . . The calculations of utility are much the same as before. . . . Since this is true for everyone, we are locked into a system of 'fouling our own nests,' so long as we behave only as independent, rational, free-enterprisers.[132]

The pollution impact of allowing an excessive number of underutilized automobiles on the streets for any environmentally conscious com-

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129. Garrett Hardin, *The Tragedy of the Commons*, SCIENCE, Dec. 13, 1968, at 1243.
130. *See* Teal & Berglund, supra note 4, at 54.
131. *See* Hardin, *supra* note 129.
132. *Id.*

munity is manifest. Hardin further points out that one means of avoiding the tragedy is by ascribing private property rights, or in effect, "de-commonizing" the commons. Licensing is one mechanism for creating such property rights, for no rational herdsman will overgraze land which is his, nor will a taxi company flood the streets within his certificated service territory with an excessive number of vehicles.[133]

Still another externality involves the impact taxi service has upon a city's image, for the economy of a city as a whole may be adversely affected by poor or highly priced transportation services. The taxi is the first and last impression a city will make on visiting tourists, conventioneers, and businessmen. A city's hotels, restaurants, airport, convention and business traffic, are dependent upon ubiquitous, reasonably priced, and efficient on-demand taxi service.[134]

Further, non-discriminatory pricing based on average costs can serve a significant social objective of assuring reasonably priced service to less affluent passengers or more remote communities, in effect requiring cross-subsidization by more affluent patrons or dense markets. In reviewing taxi regulatory issues, the U.S. Department of Transportation has observed, "[c]ross-subsidization, per se, is not automatically frowned upon if designed to meet some public policy objectives."[135]

D. Cross-Subsidies and Cream Skimming.

Most governmental authorities insist, by regulation or local ordinance, that licensed taxis operate as "common carriers." That is, taxis are required to provide service to low-density areas or at nonpeak times without pricing discrimination (i.e., the same distance-based fare be charged to all on an "average cost" basis).[136] Thus, dense markets cross-subsidize low-density and impoverished areas; peak traffic cross-subsidizes off-peak service.

Unlimited or excessive entry causes owner-operators to gravitate to high-peak high-density traffic, predominantly at the airport and hotel cabstands. As one source noted:

> When gypsy, or unlicensed, taxis siphon business and profits they severely limit the profits that licensed carriers need to sustain other required services. The possibility of opening entry to a taxi market also raises fears that newcomers would focus on these more lucrative areas, and experience in some cities has validated these fears.[137]

133. *See generally*, Dempsey, *supra* note 3, at 17-21.
134. Gilbert & Samuels, *supra* note 10, at 153-4.
135. U.S. Dep't of Transp., *supra* note 4.
136. *See* Gallick & Sisk, *supra* note 9, at 117.
137. Gilbert & Samuels, *supra* note 10, at 153; *See generally* Suzuki, *supra* note 20, at 129.

Deregulation results in some trips becoming very expensive while others decrease in price, with the cost of service no longer averaged over space and time. Professor James Foerster and Gorman Gilbert observed:

> Persons with a low ability to pay, but a high need for transportation, may no longer be able to use taxi service.
>
> These results might occur because there will no longer be any geographic or inter-temporal cross-subsidization. . . . The elimination of whatever cross-subsidies now exist without income transfers could lead to socially undesirable results.[138]

And, as noted above, given that demand for taxi services is often time sensitive, economic regulation can reduce the transaction costs of comparative shopping.[139]

E. Economies of Scale and Scope

Given the minuscule economic barriers to entry, one intuitively would not expect there to be economies of scale in the taxicab industry. Yet the per passenger overhead costs of marketing, advertising, dispatching, accounting, and cab maintenance generally decline as the size of the company's fleet grows. An ability to provide ubiquitous service also significantly enhances the marketability of the firm's product in the radio-dispatch market, for passengers thereby enjoy shorter waits, better service, and one-stop shopping, reducing customers' transaction and opportunity costs.

Economies of scope are also present in the taxicab industry. A company which dedicates its primary business to the radio-dispatch market can easily park temporarily idle cabs in hotel and airport queues. A taxi company can easily dedicate capacity to the express document delivery business.

F. The Absence of Sound Economic Conditions.

Absent regulation, few economic barriers impede entry in the owner-operator cruising and cabstand markets — all one needs is a chauffeur's license and a down payment on car. An open entry regime tends to put too many taxis on the roads when they are least needed, thereby injuring the economic health of existing firms and their drivers. Professor Shreiber observed:

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138. Foerster & Gilbert, *supra* note 114, at 385.

139. "Given that the demand by riders is generally for immediate service, the aggregate search performed by riders and drivers would tend to be extremely costly." Gallick & Sisk, *supra* note 9, at 118; "[R]egulation can increase the number and variety of taxi trips by reducing search costs." *Id.* at 119.

> In the absence of legal restrictions, the number of cabs most probably will vary in the opposite direction to general business conditions. Very little skill is required to be a cab driver, and not much money is needed to buy or rent a car that can be used as a cab. The absence of barriers to entry makes cab operation the natural occupation to turn to for those that are unemployed. The disadvantage of such fluctuations is that they will bring about a larger supply of cabs when there is less demand for them (i.e., in times of recession) and a smaller supply of cabs when the demand for them rises (in times of prosperity). Moreover, cyclical fluctuations will tend to hurt those who make cab driving their permanent job — their income will necessarily decline sharply in times of recession. Restrictions are needed to provide some income stability for these drivers, who will anyway suffer in times of recession because of the decrease in demand.[140]

Thus, the supply of labor and equipment by the industry appears to have an inverse relationship with the level of economic activity.[141]

Professor Shreiber wrote his pragmatic assessment of the economic characteristics of the taxicab industry in 1975. He was criticized at the time because the competitive model was not rejected on the basis of empirical testing.[142] Yet, as we shall see, the empirical results of deregulation confirm, rather than reject, Professor Shreiber's analysis.

Professors Lester Telser of the University of Chicago and William Sjostrom of the University College Cork have argued that various modes of transport are subject to core theory, which "really amounts to saying that competition just isn't possible in some industries . . . ."[143] Core theory emerged from game theory, and as we shall see, offers a fascinating insight into the question of why the taxicab market fails to perform the way one would expect under neo-classical economic theory.

Game theory is broken down into two general types of "games", or market environments — cooperative, and non-cooperative. The former are those in which the players (buyers and sellers in a market environment) can communicate and form coalitions so as to best meet their individual needs. Players make decisions as to which coalition they should enter based on individual needs; any large-scale benefit which arises for the players is simply a by-product. In non-cooperative "games," (such as the infamous "prisoner's dilemma") players are unable to communicate, and therefore any decisions made are not based on mutuality.[144]

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140. Shreiber, *supra* note 117, at 275-76.

141. Williams, *supra* note 5, at 36.

142. Richard Coffman, *supra* note 116, at 290.

143. Timothy Smith, *Why Air Travel Doesn't Work*, FORTUNE, Apr. 3, 1995, at 41, 46; *See* William Sjostrom, *Antitrust Immunity for Shipping Conferences: An Empty Core Approach*, 8 ANTITRUST BULL. 19 (1993); William Sjostrom, *Price Discrimination by Shipping Conferences*, LOGISTICS & TRANSP. REV. 207 (1992).

144. *See* ROBERT AXELROD, THE EVOLUTION OF COOPERATION (1984).

Core theory is a subset of cooperative game theory; a core is formed when the coalitions are aligned in such a way that no player can advance his needs by defecting to another coalition or operate on his own. By contrast, an empty core arises when players can continuously form new coalitions which bring better players. Whether a core exists or not depends on the number of players in the game, and the market environment, or rules of the game.

Several economists have described various alternatives for which a taxi trip reflects an empty core.[145] Professor John Shepard Wiley, Jr., proffers an illustration of a market with an empty core:

> For example, say that three strangers are willing to pay up to $7 each for a cab to the airport. Two cabs stop nearby. Each cab can carry one or two passengers, and each driver is willing to make the trip (with either one or two passengers) for a minimum of $6. Given these demands and costs, the worst-off or excluded player can block any arrangement by tempting some players to abandon others for a more attractive arrangement. Suppose, for instance passengers A and B force driver X down to her minimum $6 total fare, thus yielding for A and B a fare of $3 each. As a result, passenger C is stuck paying at least $6 to travel alone with driver Y. But driver X could gain an added $2 by dumping B and offering C a ride for $5—which C should accept because a $5 fare is cheaper than a $6 fare. This new coalition between X, A and C however, is vulnerable in turn to raiding by the excluded players, Y and B. Now passenger B faces a trip alone with driver Y at a fare of at least $6, and both will improve their lots if they attract passenger C with a $4 fare offer, which Y and B split between themselves and which C will prefer to the $5 that C pays as a member of the existing X-A-C coalition. This coalition instability occurs for every possible combination of players.[146]

As Professor Abagail McWilliams points out, an empty core exists when each and every coalition can be outbid by a rival coalition, so that the market cannot achieve stability; quantity and price fluctuate constantly.[147] With an empty core, the market finds itself mired in unsatisfactory results, unable to achieve competitive equilibrium. Another source summarized this illustration of dysfunctional economics more succinctly:

> Imagine, for instance, a market in which a taxi holds two people, and only two. Three people are waiting at a taxi stand, bound for the same destination, and two taxis show up. How much does it costs a taxi to make the trip

145. *See e.g.*, George Bittlingmayer, *Decreasing Average Cost and Competition: A New Look at the Addyston Pipe Case*, 25 J.L. & ECON. 57, 81-82 (1983).

146. John Shepard Wiley, Jr., *Antitrust and Core Theory*, 54 U. CHI. L. REV. 556, 560-61 (1987).

147. *See* Abagail McWilliams, *Rethinking Horizontal Market Restrictions: In Defense of Cooperation in Empty Core Markets*, Q. REV. ECON. & BUS. 3 (1990).

doesn't depend on the number of passengers. One taxi driver can try to make the same amount of revenue by offering the third passenger a fare of $20, but that passenger will likely take a bus or not travel at all, rather than pay that much. So the second driver tries to upset the first driver's arrangement, undercutting his fare for two passengers. You can see what happens: Any price agreement struck by a coalition of two passengers and one taxi can be upset by a slightly better offer from the other taxi (or the other passenger), cascading until it is no longer profitable to operate one of the taxis.[148]

Professor Telser found six prerequisites for an empty core: (1) demand is uncertain or periodic; (2) plant capacities are large relative to demand; (3) plants exhibit increasing returns to scale; (4) plants have fixed capacities; (5) there are avoidable fixed costs; and (6) it is costly to store the product.[149] Several modes of transport exhibit these characteristics including, as noted from the hypotheticals, unregulated taxicabs. The remedy advanced by Telser is that some measure of cooperation be allowed to producers in these markets, although such intra-industry collusion would be antithetical to contemporary antitrust notions.

Of course, a long-recognized alternative remedy to destructive competition has been economic regulation, which allows the market to stabilize along a more satisfactory axis.

VI. Bipolar Views on Regulation and Deregulation

Unfortunately, much of the political debate over whether taxicabs (and, indeed, any other mode of transportation) should be regulated or deregulated has become highly ideological and polarized. The proponents and opponents of deregulated entry have two vastly different views of what such a change in regulatory policy would produce.[150]

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148. Smith, *supra* note 143, at 45-46.

149. Lester Telser, Economic Theory and The Core (University of Chicago Press 1978); Competition, Collusion and Game Theory (Aldine and Atherton, 1972); *Cooperation, Competition, and Efficiency*, 28 J.L. & Econ. 271 (1985);

150. Some proponents of regulation of have urged that entry controls are necessary to:

Ensure taxicab owners a satisfactory income;
Ensure the financial responsibility of taxicab owners;
Prevent traffic congestion;
Protect mass transit systems; and
Avoid destructive competition among taxi owners and operators;

Edmund Kitch, et al., *The Regulation of Taxicabs in Chicago*, 14 J.L. & Econ. 285, 321-25 (1971). U.S. DOT Urban Mass Transp. Admin., The Application of the Federal Antitrust Laws to Municipal Taxicab Regulation 32 (1983).

Opponents of regulation have argued that these limitations:

Increase taxicab fares;
Unfairly limit competition; and
Raise regulatory costs.

U.S. DOT Urban Mass Transp. Admin., *supra*, at 32.

Proponents of deregulation argued that eliminating pricing and entry regulation of the taxicab industry would lower prices, improve service, and provide a wider variety of price and service options dictated by consumer demand, thereby fostering efficient resource allocation.[151] As one source observed, "the argument is often made solely on ideological grounds: the competitive free market in search of profit will always provide better and more efficient services."[152] More specifically, it has been alleged that deregulation would:

> Produce more taxi service and faster response times;
> Create service innovations and service expansion to poorly served neighborhoods;
> Lower fares; and
> Reduce government costs by eliminating oversight of pricing, service and entry.[153]

Most of these predictions have been based on free market economic theory which has driven much of deregulation in transportation since the late-1970s, insisting that government creates distortions which thwart market incentives for productivity, efficiency, and lower consumer prices.[154] Unfortunately, as we have seen, the taxi industry fails to reflect the perfect competition model described in micro-economic textbooks. Professor Roger Teal, who has written extensively on the subject of taxicab deregulation, offered an explanation for the wide divergence between free market predictions of what deregulation should produce, and the empirical reality of what it actually has produced:

> The emphasis placed by industrial organization principles on actual conditions in markets (and on the distortions which monopoly power creates in real-world markets) proves more useful than simple micro-economic theory

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151. "Students of economics and urban transportation frequently cite the limitation on the number of taxicabs in most American cities as a clear case of unwise government policy. They argue that a limitation on the number of cabs can only operate to raise the price and decrease the supply of taxicab service as compared to that which would otherwise be provided." KITCH, ET AL., *supra* note 150, at 285. ("The authors of this article share the academic view.") *Id. See also* ROGER TEAL & MARY BERGLUND, EXPLAINING THE IMPACTS OF TAXICAB DEREGULATION IN THE USA 2 (1986); ROGER TEAL, ET AL., URBAN TRANSPORTATION DEREGULATION IN ARIZONA 26 (1983); GILBERT & SAMUELS, *supra* note 10, at 146.

152. Rosenbloom, *supra* note 13.

153. FRANKENA & PAUTLER, *supra* note 9, at 75; PRICE WATERHOUSE, ANALYSIS OF TAXICAB DEREGULATION AND RE-REGULATION I, 6 (1993); Teal & Berglund, *supra* note 4, at 39. In contrast, opponents of deregulation contend that deregulation will:

> Result in poorer service;
> Reduce safety;
> Produce less accountability; and
> Produce less reliability.

PRICE WATERHOUSE, *supra* at I.

154. *See, e.g.*, PAUL DEMPSEY, THE SOCIAL & ECONOMIC CONSEQUENCES OF DEREGULATION (1989); DEMPSEY & GOETZ, *supra* note 2; PAUL DEMPSEY, ET AL., *supra* note 1.

> for analyzing the impacts of taxicab deregulation. Simple models of competitive behavior involving atomistic producers selling to completely-informed consumers are often used, but these theoretical generalizations of ideal types provide no useful or interesting explanations for the results observed in the dominant taxi markets — telephone orders and cabstands.[155]

Similarly, Sandra Rosenbloom, a scholar whose earlier literature embraced the unregulated free market position on this subject, concludes:

> Unfortunately, an examination of empirical data on regulatory reform of the taxi industry to date shows few of the benefits claimed by proponents. . . .
>
> [M]ost anticipated economic outcomes did not materialize. The irony is that free-market private taxis simply don't act like entrepreneurs in a free market.[156]

VII. Empirical Results of Open Entry in the Taxicab Industry

Yet we need not rely on the theoretical assumptions of what unlimited entry will produce. We have empirical results which we can assess to determine what deregulation of the taxicab industry has produced. Before 1983, some twenty-one cities deregulated taxicabs in whole or part.[157]

The experiences of these cities reveal that taxicab deregulation resulted in:

1. A significant increase in new entry;
2. A decline in operational efficiency and productivity;
3. An increase in highway congestion, energy consumption and environmental pollution;
4. An increase in rates;
5. A decline in driver income;
6. A deterioration in service; and
7. Little or no improvement in administrative costs.

Let us examine each of these results.

A. Entry

Deregulation proponents were correct in their predictions that removing entry restrictions would result in increased entry into the industry. Because of the low cost of entry into the taxicab business (i.e., a driver's license, and a down payment on an automobile),[158] deregulation

155. Teal & Berglund, *supra* note 4, at 47 [citation omitted, and the King's English spelling employed in the original].

156. Rosenbloom, *supra* note 13.

157. U.S. Dep't of Transp., *supra* note 6, at III.

158. Shreiber, *supra* note 117, at 275.

produced a sharp increase in the number of new taxis on the road, rising an average of 23% in the deregulated cities.[159] In Phoenix, the number of taxis in active service increased by more than 50% in the first year of deregulation.[160] In Atlanta, which deregulated in 1965, the number of vehicles more than doubled, from approximately 700 before deregulation, to 1,900 in 1970.[161]

Most new entrants were independent owner/operators or small firms, who concentrated their taxis at cab stands at hotels and airports, venues which already were well served prior to deregulation.[162] Hotels and airports guarantee a patron if the driver is willing to wait at the increasingly lengthy queues.[163] A driver need not invest in a radio dispatch system to serve hotels and airports.

The cabstand market quickly became saturated, forcing the established companies to focus on the radio dispatch telephone order market, which has relatively higher entry costs in terms of dispatching equipment, facilities and personnel, and requires a sufficiently large fleet to provide city-wide service.[164] Thus, the deregulated taxi industry divided into two sub-industries—a large number of independent owner-operators serving the cab stands, and a small number of larger companies focusing on the

159. PRICE WATERHOUSE, *supra* note 153, at 11. *See also* PARATRANSIT SERVICES, INC., THE EXPERIENCES OF U.S. CITIES WITH TAXICAB OPEN ENTRY 29 (1983); U.S. DEP'T OF TRANSP., TAXI REGULATORY REVISION IN OAKLAND AND BERKELEY, CALIFORNIA 49 (1983) ("[U]nchecked growth could eventually lead to increased financial difficulties for the companies.").

160. U.S. DEP'T OF TRANSP., URBAN TRANSPORTATION DEREGULATION IN ARIZONA vii (1984); ROGER TEAL, ET AL., URBAN TRANSPORTATION DEREGULATION IN ARIZONA 8 (1983).

161. FRANKENA & PAUTLER, *supra* note 9, at 144; MULTIPLICATIONS, INC., DECONTROL AND RECONTROL: ATLANTA'S EXPERIENCE WITH TAXI REGULATION I (1982) (Prepared for the International Taxicab Association). The following chart provides data on the number of taxi permits in selected cities before and after entry deregulation:

TAXICAB PERMITS BEFORE AND AFTER OPEN ENTRY

City	Before	After
Atlanta	700 (1965)	1,538 (1983)
Fresno	70 (1979)	45 (1983)
Indianapolis	502 (1972)	466 (1974)
Milwaukee	308 (1979)	351 (1983)
Phoenix	300 (1981)	425 (1983)
Sacramento	110 (1982)	168 (1983)
San Diego	409 (1978)	915 (1983)
Seattle	129 (1979)	230 (1983)
Spokane	100 (1980)	80 (1983)

FRANKENA & PAUTLER, *supra* note 9, at 144.

162. TEAL & BERGLUND, *supra* note 151, at 8; PARATRANSIT SERVICES, INC., *supra* note 159, at 43.

163. *See* Teal & Berglund, *supra* note 4, at 40.

164. TEAL & BERGLUND, *supra* note 151, at 28.

telephone order market.[165]

Because the oversaturation of the market caused inadequate profitability (resulting from more taxis serving the same, or a declining, number of patrons), taxi companies have suffered a very high turnover rate.[166] For example, 40% of the new taxi companies serving the Phoenix airport failed during the first fifteen months of deregulation.[167] Within eighteen months of an entry moratorium in San Diego, a third of taxi firms not affiliated with the two largest companies left the industry.[168]

Nonetheless, a large number of potential entrants are ignorant of marketing conditions, and/or willing to accept subsistence earnings in order to be self-employed.[169] Entering the taxi business is one of the few opportunities for self-employment by individuals with minimum skills and little capital.[170] Inadequate profitability has also dissuaded investment in large taxi firms, so that most of the new entry has been at the owner-operator level, again, satiating an oversaturated cabstand market. Except in Phoenix, in the fully deregulated cities, no new taxi companies have emerged with more than twenty-five cabs.[171]

Deregulation produced relatively small structural changes in the radio dispatch segment of the industry, reflecting the relatively higher entry costs associated with the purchase of radio equipment, dispatch person-

165. *Id.* at 30.

166. *Id.* at 28-29.

167. *Id.* at 9; TEAL & BERGLUND, *supra* note 151, at 41.

168. TEAL & BERGLUND, *supra* note 151, at 41.

169. Teal & Berglund, *supra* note 4, at 29; GILBERT & SAMUELS, *supra* note 10, at 149.

170. The taxicab business, however, does have its risks. According to a report by the National Institute for Occupational Safety and Health, cab drivers have the highest homicide victim rate among several professions. As the below chart shows, the rate is almost four times that of police officers and almost twenty times the rate for firefighters.

Occupation	Number of Homicides	Rate per 100,000 workers
Taxicab driver-chaffeur	140	22.7
Sheriff-bailiff	36	10.7
Police and detective	86	6.1
Gas station, garage worker	37	5.9
Security guard	115	5.5
Stock handler, bagger	95	3.5
Supervisor, proprietor-sales	372	3.3
Sales counter clerk	183	0.1
Bartender	20	2.3
Logging	6	2.3
Hotel Clerk	6	2.0
Salesperson, vehicles	17	2.0
Salesperson, other	73	1.7
Butcher, meatcutter	12	1.5
Firefighter	8	1.3

Laura Meckler, *Job Risks High for Cabbies*, ROCKY MTN. NEWS, July 9, 1996, at 20A.

171. TEAL & BERGLUND, *supra* note 151, at 8.

nel, marketing, and a fleet sufficiently large to provide ubiquitous city-wide service where there may be "economies of scope."[172] Thus, in most cities in which entry has been deregulated, the large incumbent firms still dominate the industry, although their market share has declined as the new entrants have swarmed to dominate the cabstand markets.[173]

The robust entry of new firms and entrepreneurs into the taxi industry, accurately predicted by deregulation proponents, has been among the most significant impediments to the achievement of consumer benefits predicted to result from deregulation:

> Low entry costs, an inherent characteristic of a totally deregulated taxi industry, represent the factor which is probably of greatest significance in preventing a more successful outcome to taxi deregulation. Because capital requirements to enter the deregulated industry are minimal, virtually any self-motivated individual can become a taxi operator. Individual operators cannot effectively compete in the telephone order market, however, so they quickly oversubscribe the airport and cabstand markets, causing full-service companies to abandon these markets except for passenger drop-offs. This results in a reduction in economies of scope for the full-service operators. With demand for taxi service stagnant or even declining, operator productivity inevitably declines with many more operators in the market.[174]

B. Operating Efficiency and Productivity.

Putting more taxis on the streets rarely produces more patrons. In fact, most deregulated cities have faced stable or declining demand as measured by the number of daily trips per cab or the trips per shift.[175] Passenger demand declined significantly in the deregulated cities, falling for example, 34% in Phoenix, 37% in San Diego, and 48% in Seattle.[176] This is not at all surprising, given the higher prices and deteriorating

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172. Teal & Berglund, *supra* note 4, at 49.

173. *Id.* at 40, 47.

174. Roger Teal, An Overview of the American Experience With Taxi Deregulation 14 (1989).

175. Paratransit Services, Inc., *supra* note 159, at 29, 33; Teal & Berglund, *supra* note 151, at 16, 27; Teal, et al., *supra* note 151, at 13.

176. Int'l Taxicab Ass'n, Does Taxicab Deregulation Make Sense? 6 (1984). "By any measure, the productivity of the Phoenix taxi industry has declined significantly since deregulation. . . . [T]he number of passenger trips per active taxi per day has declined by about one-third for the entire industry, while the number of trips per shift has decreased by one-quarter (the difference reflects lower utilization of taxis by operators after deregulation." Teal, et al., *supra* note 151, at 13-14. In San Diego, the number of vehicles increased by 30%, while each vehicle provided only 85% as much service per day. In Seattle, deregulation produced more than a 50% increase in the number of taxis, but each vehicle was providing only 76% as much service. Stalians, *supra* note 7, at 5.

levels of service deregulation produced.[177]

After deregulation, taxi productivity, measured by the number of revenue trips per day or trips per shift, fell by at least one-third.[178] As Professor Teal observed, "The decline in taxi productivity after deregulation is a natural consequence of an increase in the number of vehicles in the industry, stable or declining taxi demand, and the lack of productivity-enhancing service innovations such as shared-ride taxi services."[179]

Putting more taxis on the roads merely increases the number of empty taxis and the length of the queues at the taxi stands.[180] As noted above, new entrants tend not to have radio dispatch equipment and gravitate toward the already well served hotel and airport cabstands, competing for a constant or decreasing number of passengers.[181] As one source observed, "When transportation demand is stable or declining and attractive substitutes to the deregulated modes exist, the impacts of deregulation may be largely confined to increased competition within existing industries with few or no corollary benefits to consumers and providers."[182]

That source went on to point out that, "Opportunities for productivity improvements in urban common carriage transportation are highly limited by the basic economics of the industries inasmuch as costs for most factor inputs can hardly be reduced."[183] The one variable cost in which there is some play is driver wages, which, as we shall see, have plummeted (although not enough to offset the steep drop in driver productivity caused by unlimited entry).

C. Highway Congestion, Energy Consumption & Environmental Pollution

Putting more, and emptier, cabs on the streets not only increases highway congestion and wear and tear on the asphalt, it burns more gasoline and produces more carbon monoxide, ozone, and other pollutants. For example, after Atlanta deregulated, 300-400 taxis lined up at airport queues; waits of three to four hours were not uncommon, and waits of up to six hours were reported.[184]

Given the Damocles Sword contained in federal Clean Air Act

177. Gorman Gilbert, Effect of Open Entry and Variable Fares on the Cost of Taxicab Service to Residential Areas 2 (1984).
178. Teal & Berglund, *supra* note 4, at 46.
179. *Id.* at 52.
180. *See* Frankena & Pautler, *supra* note 9, at 8.
181. Gilbert, *supra* note 177, at 2.
182. Teal, et al., *supra* note 151, at 27.
183. *Id.* at 13-14.
184. Multiplications, Inc., *supra* note 161, at 32, 37.

Amendments of 1990, threatening draconian cuts in federal money for states and communities which fail to meet the carbon monoxide, ozone, particulate and other pollutant standards, the problems of adding more, but emptier, vehicles to city streets should be manifest. Thirty-two of the thirty-five busiest airports in the United States are located in metropolitan areas which have been designated nonattainment for ozone and carbon monoxide.[185] The two means of transport responsible for the most vehicle miles traveled to airports, automobiles and taxis, are also the most significant sources of pollution.[186]

D. Price

One would expect that excess capacity would drive prices down, as it allegedly has, for example, in the deregulated airline industry.[187] Paradoxically, precisely the opposite has occurred in the deregulated taxi industry. As Price Waterhouse observed, "prices rose following taxi deregulation in every documented case."[188]

Professor Roger Teal of the University of California studied pricing at nine cities which deregulated (i.e., Fresno, Kansas City, Oakland, Phoenix, Sacramento, San Diego, Seattle, Tacoma, and Tucson). He concluded, "In every city in this study taxi rates are now higher in real terms than before deregulation, often by a substantial amount."[189] Before deregulation, in none of these cities did rates rise as rapidly as the Consumer Price Index [CPI]; after deregulation, price increases exceeded the CPI in each of these cities.[190] Professor Teal concludes, "taxi rates may have increased as much as 10 per cent more in the deregulated cities than they would have done under continued regulation."[191]

At San Diego, Seattle and Portland, prices increased 35% during the first 18-24 months of deregulation.[192] One source summarized the results

185. Annalynn Lacombe, *Ground Access to Airports: Prospects for Intermodalism*, 48 Transp. Q. 381, 383 (1994).

186. *See id.* at 383-84.

187. Dempsey & Goetz, *supra* note 3. Actually, estimates of consumer savings resulting from airline deregulation have been grossly overstated. *Id.* at 243-63, 281-95.

188. Price Waterhouse, *supra* note 153, at 8.

189. Teal & Berglund, *supra* note 4, at 37, 42. This confirms his earlier research on the experience of deregulation in seven U.S. cities. Teal & Berglund, *supra* note 151, at 11. "The important policy lesson to be learned from the Arizona experience is that favorable impacts do not necessarily follow the removal of institutional barriers to competition in the transportation industries." Teal, et al., *supra* note 160, at 27.

190. Teal & Berglund, *supra* note 4, at 37, 42; Teal & Berglund, *supra* note 151, at 14-15.

191. Teal & Berglund, *supra* note 4, at 37, 44.

192. Pat Gelb, Early Responses to Taxi Regulatory Changes 16 (1981); S.B. Colman, Recent Developments in the Revision of Taxi Regulations in Seattle and San Diego, Transp. Res. Rec. 20 (1980); *See* Paratransit Services, Inc., *supra* note 159, at 34. Prices rose 60% in San Diego. Stalians, *supra* note 7, at 1, Address before the 50th Annual Convention

of higher taxi fares in Seattle: "[t]he high fares led to a large number of cabs, long cab lines, refusals to serve short trips, and quarrels among drivers concerning positions in the taxi queue, but did not lead to an above-normal profit because of free entry."[193]

Cabstand rate increases were even more pronounced.[194] This is because there is, and can be, little comparative shopping at the cabstand because of the formal and informal pressure patrons feel to take the next taxi in the queue under the "first in, first out" rule.[195] Because of the overcapacity created by unlimited entry, queues lengthen, discouraging drivers from competing on the basis of price.[196] Therefore, there is little effective competition. In an economic environment of declining productivity created by excessive entry and stable or declining demand, taxi operators can survive only if they can increase the revenue derived from each trip, which places upward pressure on taxi fares.[197]

Moreover, airport travelers and hotel patrons are frequently tourists or out-of-town businessmen with little information about local taxicab regulatory practices or rates, and whose travel expenses are often paid by a third party with pre-tax dollars.[198] Further, some of the economics literature reveals that much of passenger demand for taxi service is relatively inelastic with respect to fare changes.[199] Thus, most passengers who need a taxi pay the rate, even if inflated.

One source described the impact of price increases on low-income individuals:

> The increase in taxicab fares in residential areas produces a particularly bitter impact on low-income persons. A major and increasing proportion of residential taxicab business originates in low-income or minority neighborhoods. . . .[t]his is not surprising since residents in these areas are often dependent on taxicab service for mobility. These trips are for essential purposes, such as trips to grocery stores and medical facilities. In contrast, the trips from airports and downtown hotel stands are made by persons who are clearly more affluent businesspersons, vacationers, and conventioneers.

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of the New Zealand Taxi Proprietors' Federation, Wellington, New Zealand, Aug. 30, 1988. Another study found that partial deregulation produced no price or service innovations of significance in Portland, while administrative costs increased. *See* U.S. DOT URBAN MASS TRANSP. ADMIN., TAXI REGULATORY REVISION IN PORTLAND, OREGON: A CASE STUDY (1982).

193. FRANKENA & PAUTLER, *supra* note 9, at 129.

194. TEAL & BERGLUND, *supra* note 151, at 16.

195. Gelb, *supra* note 192, at 17; TEAL & BERGLUND, *supra* note 151, at 5, 23-4 (1986); TEAL, ET AL., *supra* note 160, at 8.

196. PRICE WATERHOUSE, *supra* note 153, at 8; TEAL, ET AL, *supra* note 160, at 24.

197. INT'L TAXICAB ASS'N, *supra* note 176, at 5.

198. *See* U.S. DEP'T OF TRANSP., TAXI REGULATORY REVISION IN SAN DIEGO, CALIFORNIA 102 (1981).

199. FREDERIC FRAVEL & GORMAN GILBERT, FARE ELASTICITIES FOR EXCLUSIVE-RIDE TAXI SERVICES (U.S. DOT, 1978); Teal & Berglund, *supra* note 4, at 50.

> Increasing fares to residential areas means that the impact of more taxicabs is borne disproportionately by low-income persons. In other words, *those who can least afford to pay would be charged the most. . . .*
>
> Those who follow the academic argument of "letting the market decide" taxicab fares are really "letting the poor pay more."[200]

Neither did deregulation result in lower fares in the telephone dispatch markets, and it appears to be correlated with somewhat higher prices.[201] This occurred because of the loss of cabstand business to new entrants, and the resultant loss of economies of scope associated therewith.

Even the local patron may refrain from price shopping. Forty percent of all resident users take a taxi trip one or fewer times a month.[202] Patrons employing taxi services so infrequently have little incentive to take the time to engage in comparative price shopping.[203] Of course, higher prices may force some low-income riders either to reduce the number of their taxi trips, or decline spending their limited money purchasing other necessities, as much taxi demand appears to be price inelastic.[204]

Deregulated cities experienced growing complaints of price gouging and overcharging, particularly at the cabstands.[205] A study of pricing in Washington, D.C., in June, 1985, which then had open entry and more taxi cabs per capita than any other city in the nation,[206] revealed that taxi drivers overcharge their patrons 36% of the time, and the average overcharge was 22%.[207] In Seattle, overcharging of up to 50% above the average fare was reported.[208]

Firms which have lowered prices generally have not stimulated lower price responses by competitors, nor have their market shares appreciably

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200. GORMAN GILBERT, EFFECT OF OPEN ENTRY AND VARIABLE FARES ON THE COST OF TAXICAB SERVICE TO RESIDENTIAL AREAS 6-7 (1984) [emphasis in original].

201. Teal & Berglund, *supra* note 4, at 44; TEAL & BERGLUND, *supra* note 151, at 15.

202. *Id.* at 23.

203. Teal & Berglund, *supra* note 4, at 50.

204. *Id.*

205. *See* PARATRANSIT SERVICES, INC., *supra* note 159, at 10.

206. One study performed in 1970 reviewed taxi entry regulation by 30 cities with a population of 325,000 or more. It revealed that the number of licenses varied from 0.2 in Phoenix to 11.3 in Washington, D.C. (which had no entry restrictions), and that the number of licenses per square mile ranged from 0.4 in Phoenix to 139.3 in Washington, D.C.; Utterback, *A Summary of Recent Taxicab Studies* 12 (City of Milwaukee, Legislative Reference Bureau, 1975) *in* U.S. DOT URBAN MASS TRANSP. ADMIN., THE APPLICATION OF THE FEDERAL ANTITRUST LAWS TO MUNICIPAL TAXICAB REGULATION 31, n.31 (1983).

207. Sheldon Shane, *Calling All Cabs*, TRAVEL-HOLIDAY MAGAZINE 46 (Feb. 1985); PARATRANSIT SERVICES, INC., THE QUALITY OF RESIDENTIAL TAXICAB SERVICE IN WASHINGTON, D.C. 19 (1985).

208. GELB, *supra* note 192, at 18.

increased.[209]

We have explored several reasons why excessive capacity in the taxicab industry has not resulted in lower fares, as we would intuitively expect. Professor Roger Teal has succinctly summarized three supply factors and four demand factors which militate against lower fares. The supply factors are:

> "Monopoly" profits earned under regulation were significantly less than estimated;
> Deregulation did not create a competitive industry structure in the telephone order market; and
> There is no apparent cost basis with on which to predicate price reductions.[210]

On the demand side, Professor Teal offered these explanations:

> Demand for taxi service is characterized by imperfect information and strong name recognition;
> The demand for taxi service may be inelastic;
> Per capita demand for taxi service is either stable or suffering from long-term decline; and
> Leasing partially insulates taxi firms from the passenger market.[211]

E. Income

In the deregulated cities, driver income decreased despite higher fares. The fare increases imposed by taxis under deregulation have not offset the sharp decline in productivity (the reduction of revenue trips per day) caused by excessive entry.[212]

The shift from employee drivers to owner-operator or lease drivers results in a loss of minimum wage guarantees for taxi drivers.[213] Most taxi drivers in deregulated cities earned less (often despite spending more hours behind the wheel) than before deregulation.[214]

For example, under deregulation in Phoenix, drivers worked an average of 10-14 hours per day, six days a week, earning only about $2.00-$4.00 per hour.[215] In San Diego, driver wages declined 30% from pre-

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209. Teal & Berglund, *supra* note 4, at 44.
210. *Id.*
211. *Id.* at 37, 48.
212. *See* Teal, et al., *supra* note 160, at 14; Roger Teal, Taxicab Regulatory Change in San Diego, Taxicab Management 28, 32 (Fall 1986); Teal & Berglund, *supra* note 4, at 46.
213. Teal & Berglund, *supra* note 4, at 46.
214. Pat Gelb, Effects of Taxi Regulatory Revision in San Diego, California (U.S. Dep't of Transp., 1983); Pat Gelb, Effects of Taxi Regulatory Revision in Seattle, Washington, (U.S. Dep't of Transp., 1983); Teal & Berglund, *supra* note 151 (unpublished manuscript), at 17-18; Teal & Berglund, *supra* note 4, at 46.
215. Teal, et al., *supra* note 160, at 14.

deregulation levels, to only $135 a week.[216] Such poor pay is for a job which has the highest homicide rate of any profession.[217]

F. Service

As we have seen, most of the new entry unleashed by deregulation has been by small companies in the airport and hotel cabstand market — a market traditionally well served—in effect, "cream skimming" the least costly market. The telephone dispatch market, upon which most local residents rely, is generally left with the same, or poorer (and more highly priced), service as before, since taxis in the larger firms are now dissuaded from entering the end of a longer queue at the cabstand market, and forced to focus on the higher-cost radio dispatch market. The radio dispatch firms have lost between 10% to 25% of their business because of the need to abandon the cabstand markets, which were the least expensive markets to serve (for it requires neither dispatching operations nor equipment dead heading).[218]

As we have seen, excessive entry leads to declining productivity, and because fare increases failed to keep pace, declining profitability. A carrier facing profit erosion can reduce costs by "lowering the quality of taxi services (for example, employing a small or deteriorated vehicle, reducing insurance coverage, or driving recklessly)."[219] Not only has deregulation generated little service innovation,[220] it is not unusual to see several service problems arise when the regulatory system collapses, including:

> Excessive fares;
> Circuitous routing; and
> Refused service.[221]

Most cities which deregulated experienced a deterioration in service. The taxi refusal and "no show" rates increased, particularly in low income areas,[222] although there were many short haul refusals at cabstands as well (probably by drivers who had sat in the queue too long and needed a long trip and a decent fare to compensate them for their inactivity).[223]

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216. Teal, *supra* note 212, at 32; Teal & Berglund, *supra* note 4, at 42.

217. *Death On the Job*, The Economist Dec. 3, 1994, at 39.

218. Teal & Berglund, *supra* note 4, at 54.

219. Gallick & Sisk, *supra* note 9, at 120.

220. "Exclusive ride taxi service remains the only service offered in the deregulated cities." Teal & Berglund, *supra* note 4, at 46. *See* Teal, et al., *supra* note 160, at 13; Rosenbloom, *supra* note 13.

221. Robert Russell, Recent Taxicab Developments in Los Angeles, in Proceedings of the Conference on Taxis as Public Transit 65 (Univ. of California, 1978) (describing the illegal activities of taxi "bandits" which emerged after a major taxi company fell into bankruptcy). *See generally*, Suzuki, *supra* note 20, at 129.

222. *See* Paratransit Services, Inc., *supra* note 207, at 24.

223. *See* Price Waterhouse, *supra* note 153, at 15.

The "no show" rate at Seattle increased 35% after deregulation; the "no show" rate at San Diego increased from 5% in 1976 to 18% in 1979.[224]

The oversupply of cabs reduced the earning potential of drivers, causing a decline in the quality of the drivers, and leading them to engage in overcharging and discourteous behavior.[225] Indianapolis, among the first cities to deregulate entry in the taxi industry, experienced the following problems:

> After the first winter the independent operators found they had no money to maintain or repair their vehicles. Insurance cancellation notices received by the City . . . increased from "one or two" per month to "about one hundred fifty" per month. Complaints to the City about cab service "tripled" . . . .
>
> Added to these difficulties was a reported rise in the amount of crime by taxi drivers and operators. . . [t]he reported rapes and robberies committed by taxi drivers also increased.[226]

Reviewing the Indianapolis experience, the U.S. Urban Mass Transportation Administration concluded, "adding new owners into a highly competitive supply-rich market is beneficial neither to the public nor to the taxi operators."[227]

Customer complaints in Fresno, California (where deregulation lasted only eighteen months), tripled, and they ranged from price gouging to the poor upkeep of the vehicles.[228] In San Diego, many drivers refused short trips, and drivers at the end of the queue sometimes sought to serve passengers at the head of the line — often generating physical altercations.[229] In Phoenix and San Diego, the visitor and convention bureaus pushed for re-regulation.[230] The Washington state legislator who led the successful fight for taxi re-regulation said, "taxicab riders have been getting 'raped' by poor service and expensive fares ever since Seattle area taxicabs were deregulated . . . ."[231] Another source summarized the Seattle community's response to the problems created by taxicab deregulation:

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224. TEAL & BERGLUND, supra note 151, at 10.

225. MULTIPLICATIONS, INC., *supra* note 161, at 40.

226. U.S. DOT URBAN MASS TRANSP. ADMIN., THE INDIANAPOLIS EXPERIENCE WITH OPEN ENTRY IN THE TAXI INDUSTRY 9-10 (1980). Drug and prostitution rings were also operated by the unregulated taxis. *Id.*

Taxi drivers also often are victims of crime. Statistically, taxi drivers and chauffeurs suffer the highest homicide rate of any profession, even higher than policemen. *Death On the Job*, *supra* note 217, at 39.

227. *Id.* at 15.

228. *See* PARATRANSIT SERVICES, INC., *supra* note 159, at 10.

229. Rosenbloom, *supra* note 13.

230. *See* Shane, *supra* note 207, at 46; PARATRANSIT SERVICES, INC., *supra* note 159, at 23.

231. Doug Underwood, *Taxi Regulation Is Back in Laps of Local Governments*, SEATTLE TIMES, Feb. 26, 1984, at 52.

> The troubles in the cab lines—large increases in fares, substantial variation in fares among taxis, much longer taxi lines, refusals by drivers to carry passengers short distances, and minor violence—convinced area officials, hotels, and the tourist industry that this market was not suited to full-scale decontrol.[232]

After deregulation, both Washington, D.C., and Atlanta, Georgia, experienced increasing problems with drivers who had a language problem and poor knowledge of city streets, were overcharging customers, and were dishonest by not taking the most direct route.[233] Service quality deterioration under deregulation also prompted calls for entry regulation by Congressional and media leaders in Washington, D.C.[234] The *Washington Post* recently had this to say about taxi service in the *de facto* deregulated District of Columbia market (one out of four D.C. cabs operates with an illegal permit, and bribes for the issuance of inspection stickers and operating permits were under criminal investigation):

> [T]he District's cab fleet averaged 10 accidents a day last year — around 3,800 annually. That's more crashes than there are *cabs* in Los Angeles, Philadelphia, San Diego and San Antonio combined. . . .
>
> [D]rivers routinely overcharge passengers, bribe their way through safety inspections, swap cars and drive without insurance. . . .
>
> Though ours is the nation's 19th largest city, Washington harbors at least three times the number of cabs of any other city in America except New York and Chicago. (Only one, New York, has more cabs—11,500.) Since this massive oversupply means fewer fares per driver, many cabbies make ends meet by cutting corners—for instance, refusing trips to out-of-the-way places, overcharging or skimping on repairs.[235]

Atlanta suffered many of the same problems under deregulation:

> The taxi industry . . . has historically been criticized by city visitors for the poor condition of its vehicle fleet, the sloppy appearance of drivers and their negative attitudes, apparent driver lack of knowledge of the city, and frequent instances of overcharging. Officials of local commerce and trade organizations consistently complained that the industry was an embarrassment to

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232. Richard Zerbe, Jr., *Seattle Taxis: Deregulation Hits a Pothole*, REGULATION, Nov./Dec. 1983, at 43, 47. At the Seattle Amtrak station, "There were reports of physical intimidation, of drivers who lied about the availability of bus service, who were slovenly, vulgar, and rude — and so on." *Id.* at 46. "The Sea-Tac airport has had even worse problems in its cab lines . . . . Many [drivers] refused short-haul customers. . . . Drivers were less knowledgeable, cabs dirtier." *Id.* at 46.

233. PARATRANSIT SERVICES, INC., *supra* note 207, at 14, 20; MULTIPLICATIONS, INC., *supra* note 161, at 18-19.

234. U.S. DEP'T OF TRANSP., *supra* note 4, at 130.

235. Christopher Georges, *D.C.'s Checkered Cabs: Why Washington's Taxis Are America's Worst*, WASH. POST, Mar. 21, 1993, at C1, C2.

the city and lobbied strongly for reform.[236]

As a result, in 1981, Atlanta reimposed entry controls.[237]

Poor profitability made it impossible for many taxi companies to invest in new cabs, causing the average age of vehicles to grow.[238] For example, Washington, D.C., with the most taxis per capita of any city in the nation,[239] also suffers from the oldest fleet.[240] Seattle's average fleet age increased 50% during the first three years of deregulation.[241] Charges of inadequate equipment maintenance, lack of cleanliness, and poor appearance also have been levied.

The taxi operator is the first introduction to the city that a convention, vacation or business traveler has, and the last impression he has prior to departure. Consequently, the convention and hotel industries often lead the charge for re-regulating the taxi industry.

G. Administrative Costs

Although one would intuitively expect government administrative costs to fall under regulation, in fact, the U.S. Department of Transportation case studies reveal that such costs either did not change or increased.[242] In several instances, consumer complaints led to enhanced governmental scrutiny of the industry, and correspondingly increased administrative costs. For example, under deregulation, Seattle estimated it spent more money that it ever had in enforcing the remaining vehicle regulations.[243]

VIII. Summary of the Empirical Results of Taxi Deregulation

After concluding several exhaustive studies of the empirical results of taxicab deregulation, Professor Roger Teal concluded:

> Taxicab deregulation cannot be demonstrated to have produced, in most cases, the benefits its proponents expected. Prices do not usually fall, improvements in service are difficult to detect, and new price-service combinations have not been developed. There is little evidence that either

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236. Multiplications, Inc., *supra* note 161, at 34.

237. Rosenbloom, *supra* note 13.

238. Price Waterhouse, *supra* note 153, at 15.

239. A 1979 telephone survey revealed that Washington, D.C., had five times the number of taxicabs per capita as the next highest city, Atlanta. Washington had 14.7 per 1,000 residents, while Atlanta had 2.8. U.S. Dep't of Transp., *supra* note 4, at 61-62.

240. Paratransit Services, Inc., *supra* note 207, at 11.

241. Rosenbloom, *supra* note 13.

242. Price Waterhouse, *supra* note 153, at 16; Paratransit Services, Inc., *supra* note 159, at 45.

243. Rosenbloom, *supra* note 13.

> consumers or producers are better off. The one important exception is new entrants to the industry, who now have an opportunity to serve a market to which they were previously denied access. Even for them, however, deregulation is a mixed blessing. Many have been unable to survive in the more competitive unregulated environment, and those who have survived are apparently obtaining low earnings.[244]

A more recent study by Price Waterhouse of twenty-one cities which deregulated reached similar conclusions:

> [T]he benefits of deregulation were devaluated by unanticipated and unattractive side effects:
>
> *Although the supply of taxi services expanded dramatically, only marginal service improvements were experienced by consumers.* Within a year of deregulation, the supply of taxi services increased an average of 23%. Because most new entrants were independent operators and small fleet owners with limited capability to serve the telephone-based market, most new service was concentrated at already well-served locations—such as airports and major cabstands. Customer wait times at these locations, already short, were reduced further. Response times in the telephone market were similar to pre-deregulation performance. Trip refusals and no-shows, however, increased significantly.
>
> *Prices rose in every instance.* Paradoxically, the influx of new entrants did not invoke the price competition typically experienced in other newly-deregulated industries. Prices rose an average of 29% in the year following deregulation. There appear to be two sources of this unexpected event. First, fare increases prior to deregulation had consistently lagged cost increases. Veteran operators thus corrected prices at the first opportunity. Second, new entrants generally charged higher fares than veteran operators. The cabstand markets on which these operators focused their services are generally price insensitive and, because of the first-in first-out nature of the taxi queues, comparison shopping is discouraged. For these reasons, the new entrants had no incentive to introduce price competition.
>
> *Service quality declined.* Trip refusals, a decline in vehicle age and condition, and aggressive passenger solicitation associated with an over-supply of taxis are characteristic of a worsening in service quality following deregulation.[245]

Given the failure of deregulation to produce consumer pricing and service benefits, coupled with its propensity to injure carrier productivity and profitability, most communities which have experimented with deregulation have rejected it, and re-regulated, in whole or part, their taxi industry. Of the twenty-one cities which deregulated prior to 1993, the experience with deregulation was so poor that only four of the smallest cities in the group (i.e., Berkeley, California, Spokane, Washington, Ta-

244. Teal & Berglund, *supra* note 4, at 54; *See also* TEAL & BERGLUND, *supra* note 151, at 30-31.

245. PRICE WATERHOUSE, *supra* note 153, at II-III [emphasis in original].

coma, Washington, and Springfield, Illinois) retained a fully unregulated system.[246]

Cities which continued to embrace deregulation tended to have one of the following characteristics: (1) a relatively smaller population; (2) less reliant on airport activity; or (3) had implemented other measures which created barriers to market entry.[247] In contrast, "[c]ities which had a relatively large population, a high level of airport activity, and conditions conducive to low-cost market entry tended to have a negative experience with deregulation. As a result, these cities either fully or partially re-regulated taxi services . . . ."[248] The wave of re-regulation was led by the largest cities with the most airport activity among the group that had deregulated.[249]

IX. The Need For Governmental Planning & Oversight

Taxicabs are an essential part of the urban transportation infrastructure, and some would argue, in the nature of a public utility.[250] As we have seen, the unregulated taxi market suffers from the absence of a competitive market, imperfect information, significant transactions costs, externalities, cream skimming, the loss of economies of scale and scope, and destructive or excessive competition, collectively producing demonstrable deleterious economic and social consequences. While deregulation produces a significant increase in new entrants, it appears to cause declining operational efficiency and productivity, an increase in highway congestion, energy consumption and environmental pollution, a decline in driver income, a deterioration in service, and paradoxically, an increase in passenger rates, with little or no improvement in administrative costs. Any objective assessment of the empirical evidence would conclude that the costs of taxicab deregulation outweigh its benefits. Virtually every major

246. *Id.* at I-III, 19.
247. *Id.* at 6.
248. *Id.* at 8.
249. *Id* at 17.
250. One source provided a comprehensive rationale for economic regulation of the taxicab industry:

> Government regulation is deemed necessary because taxicabs supply a service which is considered publicly indispensable and because taxicab firms often operate as monopolies or oligopolies. Moreover, in theory, government regulation of monopolies can keep prices at a reasonable level. Early common law established that certain businesses could harm those who wanted or needed service by refusing to serve them or by charging exorbitant prices, thereby justifying public regulation of such businesses.
>
> Taxicabs, as public utilities, are required to serve every customer in their service area at reasonable rates and without unjust discrimination. Public utilities are also prohibited from entering a new market, supplying a new service, or abandoning an existing market without the consent of a public authority. The "public interest" is the determining factor in most governmental decisions involving public utilities.

Barker & Beard, *supra* note 8, at 33.

city which has tasted economic deregulation of the taxi industry has lived to regret it, and reversed course.

The fundamental question is not whether taxis should be regulated, but how they might best be regulated. That requires careful oversight by the regulatory body to assure the *appropriate ratio of taxis to passengers to ensure prompt, safe, and reasonably priced service for the public, while allowing efficient and well managed firms to earn a reasonable return on investment.*[251] Too few taxicabs results in excessive waiting times (and opportunity costs) for passengers. Too many taxicabs results in lower productivity and lower profitability for service providers, despite higher fares for consumers.

If there is a legitimate criticism to be levied at regulators, it is that they too often skirt this difficult task. As one commentator said of the New York medallion system:

> The main deficiency of the New York system of price/entry regulation was the total lack of any planning. Neither the fares nor the number of medallions issued was determined on the basis of what was needed to achieve economic efficiency in city transport. . . . The shortcomings of the New York City system of price/entry regulation is a result of poor administration, and not of any inherent deficiencies of a system of regulation.[252]

Generally speaking, taxi demand is a function of two major variables — the overall economic activity in the market (including population, employment and income), and the relative price and quality of service of taxis vis-à-vis alternatives modes of transport (automobiles and public transportation). The appropriate level of taxis per thousand citizens should be determined in light of the unique transportation needs of each city, ascertained on the basis of the density of its population,[253] street congestion, air pollution, and perhaps such factors as the price and availability of downtown parking,[254] the number of automobiles per capita, the

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251. *See generally*, DEMPSEY, supra note 2, at 220-27.

252. Shreiber, *supra* note 90, at 278-79.

253. The following chart provides data on population densities in selected cities:

POPULATION PER SQUARE MILE IN SELECTED CITIES

City	Population/Square Mile	Land Area (Sq. Miles)
Chicago	12,251	227.2
Denver	3,051	153.3
Los Angeles	7,426	469.3
Philadelphia	11,734	135.1
Phoenix	2,342	419.9
San Francisco	15,502	46.7
San Diego	3,428	324.0
Seattle	6,154	83.9

American Almanac (1993-94).

254. The following chart provides data on the number of parking spaces per employees for selected cities:

number of hotel rooms, the distance of the airport from downtown,[255] the volume of passenger traffic derived therefrom, and the economic health of existing taxi firms.[256]

For example, in the mid-1970s, taxis carried a million passengers a day (one fifth as many passengers as the subways) in a huge urban city like New York, with its rush hour grid lock.[257] Cities like New York, Boston, Philadelphia, Detroit or Chicago are densely concentrated urban centers where streets are congested and private automobile parking is expensive. Many residents do not own an automobile, nor need they, given the well developed public urban transit systems. Taxi service consumption would likely be at a much higher level in an Eastern city (built for the horse and carriage) than in a Western city (built for the automobile), like Denver, Salt Lake City, or Dallas, with their suburban sprawl, relatively uncongested streets, and relatively plentiful and inexpensive

RATIO OF PARKING SPACES/EMPLOYEES IN SELECTED CITIES

City	Parking Spaces	Employees	Ratio of Spaces/Employees
Charlotte	36,000	50,000	1/1.4
Dallas	77,034	117,000	1/1.5
Denver	33,200	102,000	1/3.1
Minneapolis	62,500	140,000	1/2.2
Phoenix	22,669	24,000	1/1.0
Portland	43,914	94,000	1/2.1
Salt Lake City	27,500	58,000	1/2.1
Seattle	48,557	156,000	1/3.2

Denver Downtown Partnership, Inc.

255. The following are the approximate driving distance of the airport from downtown in selected cities:

AIRPORT DISTANCE FROM DOWNTOWN IN SELECTED CITIES
(in miles)

Airport	City Served	Distance to Downtown
Dulles	Washington, D.C.	26.5
Denver International	Denver	24
Houston Intercontinental	Houston	22
DFW International	Dallas	17
K.C. International	Kansas City	17
John F. Kennedy	New York	15

256. In assessing the economic health of existing firms, the following data provide some indication of national industry average performance:

SELECTED NATIONAL TAXICAB PERFORMANCE DATA (1993)

Average Annual Miles Per Taxi	51,224
Average Paid Miles Per Trip	6.3
Average Annual Trips Per Taxi	8,359
Average Annual Passengers Per Taxi	13,883
Average Cost Per Mile	$0.943

Industry Sources.

257. Shreiber, *supra* note 90, at 278.

parking.[258]

New entry should be modest, measured and monitored. In deciding which among several applicants should be allowed to operate in the market, a prudent regulatory authority might choose the applicant which, for example, has a sound financial base and a seasoned and experienced managerial team, a minimum fleet size with centralized radio dispatch to serve the entire community adequately,[259] trained and experienced drivers, adequate insurance, and a young, safe and environmentally sound fleet of cabs. On the last point, there is significant concern as to whether a number of cities will be able to comply with Federal Clean Air Standards. If not, they stand to lose hundreds of millions of dollars in Federal grants.

The regulatory authority might also phase-in additional taxicabs over a period of years, regularly monitoring their impact upon the public in terms of price, safety and service (including customer complaints, service response times, and such), and upon the health of the industry. If the regulatory authority found that the problems of destructive competition, described above, were emerging, it might well reduce the number of taxicabs to be licensed during the prescribed forthcoming period. Thus, the regulatory authority must be careful to expand entry on a phased-in basis only very gradually, and monitor the results closely.

In the final analysis, the suitability of taxicab service and pricing is a

258. The following chart provides data on the distribution of vehicles-to-population of a sample of 741 cities:

DISTRIBUTION OF THE CABS-TO-POPULATION RATIO, 1970

Cab licenses per thousand population	Proportion of Sample Jurisdictions %
Under 0.2	10
0.2 to under 0.4	20
0.4 to under 0.6	23
0.6 to under 0.8	16
0.8 to under 1.0	10
1.0 to under 1.2	8
1.2 to under 2.0	9
2.0 and over	5
Median licenses per thousand = 0.57	

J.D. WELLS & F.F. SELOVER, CHARACTERISTICS OF THE URBAN TAXICAB TRANSIT INDUSTRY (1972).

259. The city officials of Indianapolis, which experimented with open entry in the early 1970s, concluded that "they should have required a minimum of ten vehicles per owner and radios in each cab." U.S. DOT URBAN MASS TRANSP. ADMIN., *supra* note 226, at 9-10 . Another source concluded, "all taxicabs should be required to be affiliated with a fleet large enough to serve all parts of the city 24 hours a day (e.g., 25 vehicles) and that every taxicab be required to have a two-way radio and meter. Gene Stalians, *supra* note 7, at 11, Address before the 50th Annual Convention of the New Zealand Taxi Proprietors' Federation, Wellington, New Zealand, Aug. 30, 1988.

peculiarly local issue, best tailored by local governments based on their unique populations, spatial densities, road congestion, air pollution, and airport and hotel traffic. For that reason, whatever the national ideological infatuation with comprehensive infrastructure deregulation, Congress should instead embrace an alternative national political movement—one which champions devolution, or reversing the 20th Century megatrend of power flowing from the states to Washington—in favor of local control.[260] In this area, the state and local governments should be left alone to foster the unique local public and private transportation system that suits them best.

260. Michael Barone, *Power to the States*, U.S. News & World Rep., Jan. 23, 1995, at 40.

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May 1998

$25 for ITLF & ITLA Members
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Table of Contents

1.0 Introduction

This report presents the results of a study of taxicab regulatory changes in three cities: Cincinnati, Ohio; Indianapolis, Indiana; and Seattle, Washington. To understand the significance of the study findings it is first necessary to understand the context in which these regulatory changes occurred. This introductory section of the report presents provides background information on the taxicab industry, taxicab company organizational structures, a perspective of industry/government regulation, and a review of the study data collection process. Sections 2.0 through 4.0 describe the regulatory changes that occurred in each of the three cities, the motivations for those changes, and the impacts of the changes. Section 5.0 provides cross-city comparisons, and Section 6.0 presents study conclusions.

1.1 Importance of the Taxicab Industry

Myths and perceptions about taxicabs are very different from reality. Often viewed as a service of last resort operated by poorly qualified drivers, the industry is frequently misunderstood both by the public and by transportation policy-makers at all levels of government. In addition to being the mode of last resort (transportation safety net) for the elderly, disabled and poor, the taxicab is also the mode of choice for many business travelers, tourists, special school students, corporations transporting customers and packages, hospitals transporting blood and medical supplies, automobile dealers transporting service customers, and a wide range of businesses. It is an industry for which images are very misleading.

One poorly understood characteristic of the industry is its availability of service. It is perhaps unique as a nearly ubiquitous industry that provides service twenty-four hours a day, everyday. It serves virtually all cities and towns in the U.S., and it does so through operations which, with a few exceptions, are locally owned. Thus, it is an indigenous industry that is available nearly everywhere at nearly any time.

The amount and range of service provided by taxicabs in the United States is staggering. In 1986, the last year for which national survey data are available, taxicabs transported 1.43 billion passengers (Stanley and Burby, 1988). This figure compares with about twenty million Amtrak passengers, approximately two billion urban rail passengers, and over five billion urban transit bus passengers (Gross and Feldman, 1994). Taxicab operators in 1986 provided this service using 170,000 taxicabs and operating 10.1 billion vehicle-miles. Urban rail systems that same year operated over 400 million vehicle-miles, and urban buses operated about two billion vehicle miles. Thus, the U.S. taxi industry is of comparable size--depending on the measure--of urban transit buses and urban rail systems and larger than Amtrak.

These numbers, however, underestimate the size and importance of the taxicab industry. In the past twenty years the taxicab industry has diversified through new services, such as executive sedans, and through contracts with public agencies, such as transit authorities and human service providers. In 1986 nearly two-thirds of the taxicab operators provided services under contracts with hospitals, corporations, cities, transit authorities, and human service agencies. The extent of

contracting is evident in the fact that in 1986 only 83.2% of the vehicles in the taxicab industry were taxicabs. That is, there were 170,000 taxicabs plus about 34,000 vans, buses, executive sedans, and limousines operated by taxicab companies. When these additional 34,000 vehicles are included, the taxicab industry transports 2 billion passengers per year.

1.2 Taxicab Organization Structure

In interpreting the results of this study it is helpful to understand the organizational structure of the taxicab industry in the U.S. and in these three cities. Typical of the local taxi industries in other large U.S. cities, the local taxi industries in Cincinnati, Indianapolis, and Seattle are characterized by three factors:

1. Independent contractor drivers;
2. Extensive competition; and
3. A variety of organizational structures.

It is appropriate to explain how these factors are present in these three cities.

According to a 1986 national survey, more than three out of every four taxi drivers work as independent contractors (Stanley and Burby, 1988). "Independent contractor" in the case of taxi drivers means that the driver either owns or leases his or her taxicab vehicle and is free to work where, when, and how he or she wishes, subject to city regulations. Independent contractors operate as small, one-person businesses rather than as employees. Given that the trend toward independent contractor status has not abated in the eleven years since the 1986 survey, it is likely that few employee taxi drivers remain in most large cities. The taxicab fleet owners interviewed for this study indicated all their drivers worked as independent contractors.

One of the myths of taxicab service is the belief that a single company owns all the taxicabs in a city. The Stanley and Burby 1986 survey found that in cities over 200,000 population only 6.9% of the responding companies operated all the taxicabs in their cities. In fact, 58.9% reported that they operated less than half of the local cabs, and many of these were operated by owner-drivers who owned their own cabs but operated under the auspices of a fleet operator.

This large amount of local competition is evident in Seattle, Cincinnati, and Indianapolis both before and after their recent regulatory changes. In 1994, before it opened entry, Indianapolis had 392 cabs licensed among three major companies, several small companies and cooperatives, and 26 independent owner-drivers. In 1995, prior to implementation of the requirement in Seattle that all taxicab operators belong to an association, there were 210 independent owner-drivers and seven companies. There was also extensive competition among 20 companies operating in Cincinnati prior to the relaxation of entry requirements in 1994.

These three cities also reflect the national picture of organizations within the local taxi industry. All three cities have taxi companies in which some vehicles are owned by the company and leased to drivers and some vehicles which are owned by drivers but which are operated under the auspices and color scheme of the company. All three cities also have associations or

cooperatives composed of owner-drivers. And, all three cities have large numbers of owner-drivers who operate as one-person companies.

The importance of these three organizational forms results from the very different ways in which they operate. Companies, as well as some associations, often work hard to market taxi service among local businesses, tourist facilities, and general public. Companies and associations also typically have dispatch services for their drivers, and in most cities operate twenty-four hours a day. Individual owner-drivers, on the other hand, seldom do marketing, are not affiliated with dispatch services, and normally serve walk-up locations such as airports and hotel stands.

1.3 Theory of Taxicab Regulation

The underlying theory and rationale for governmental regulation of taxicab services is that such regulations are necessary to correct market imperfections. Simply put, market imperfections exist when the necessary conditions for a free market are not met (Frankena and Pautler, 1984). Some of the most important of these conditions are: many service providers; many consumers; and perfect information among consumers about the prices and qualities of all providers. In many industries these conditions are met. Restaurants are an example; there are many restaurants, and prospective diners can examine a restaurant and even review its menu before deciding to dine there. A diner can even leave a very unsatisfactory restaurant. Moreover, each restaurant has a clear identity and location, so an unsatisfied diner can decide whether or not to return to the restaurant and can tell his or her friends about the quality and price of the restaurant. There are even reviews and guidebooks rating restaurants.

For taxi service the situation is generally very different. For local taxicab consumers who frequently telephone for taxicab service, the conditions might be met. However, for other consumers the situation is very different. Persons hailing a cab, engaging a taxicab in a queue at a hotel or airport taxicab stand, trying to get a taxicab in the middle of the night, or simply not frequent taxicab users all lack adequate information on alternative taxicab providers and lack the ability to shop for cab service. And, an unsatisfied taxicab user—unlike an unsatisfied diner—may be unable to exit a moving cab in hopes of finding another, more satisfying one. For all these situations there is a need for regulations that ensure the taxicab user that some level of safety and service is met by all taxicabs.

1.4 Taxicab Regulation in Practice

Generally, taxicab regulation is a municipal responsibility. It is entirely so in most states; in a few states, such as Pennsylvania, Nevada, Maryland, and Kentucky, there is limited state involvement in taxicab regulation.

Taxicab regulation is of two types: (1) *economic regulation*; and (2) *safety regulation*. The second of these is relatively uncontroversial. Cities impose certain licensing requirements on taxicab drivers and vehicle owners. Drivers must meet age, health, driving history, and character standards. Vehicles must meet safety and design standards. While there is sometimes

controversy over how these standards are imposed and enforced, there is fundamental agreement that cities should impose safety regulations on taxicabs and drivers.

Such is not always the case for economic regulation. Economic regulation consists of three types: (1) *entry controls*; (2) *fare regulations*; and (3) *service requirements*. Of these the latter two are also relatively uncontroversial. Virtually all cities, other than a few very small ones, impose some restrictions on fares, either by setting a uniform fare or by setting a maximum or minimum fare. Service requirements include two-way communication, 24-hour service, prohibitions on soliciting passengers, conditions under which a driver can refuse to transport a passenger, and many other such provisions.

It is the entry controls that provide the controversy in taxicab regulation. Entry controls are requirements that cities place on applicants for taxicab operating licenses, not on taxicab drivers' licenses. Cities vary considerably with respect to the strictness of their entry control, and there are six categories in which these entry controls fall. These are:

1. Fixed ceiling or medallion (30.4 %)
2. Public convenience and necessity (25.4 %)
3. Minimum standards (17.6 %)
4. Open entry (12.2 %)
5. Population ratio (8.7 %)
6. Franchise (5.7 %)

The numbers in percentages are the percentages of U.S. cities with each type of entry control (Shaw *et al.*, 1983). Note that one-half of the cities with open entry had fewer than 10 taxis in the city. Also, the restrictiveness of entry in cities using a population ratio depends on the ratio chosen.

Of these entry controls the first and last ones elicit the greatest attention. Economists, reporters, and taxicab regulators in other cities point to New York City, which has had a medallion system since 1937 and whose medallions now trade for over a quarter million dollars. To critics the New York situation represents the archetypal example of the problems of a system that fixes the number of medallions over time. On the other hand, the elimination of all entry control (#4), which is discussed in the remainder of this report, creates a set of other problems such as higher fares, poor quality drivers, overcrowding at key taxi stands, poor vehicle conditions, etc. (Price Waterhouse, 1993; Gelb, 1983a and 1983b; Zerbe, 1983; Teal, 1987).

Often lost in the debate over entry controls is the fact that there are four other mechanisms for controlling entry. To varying degrees these mechanisms blend control over entry, the ability to expand taxicab supply to meet demand, and the preservation of competition. The franchise mechanism, for instance, is used by Los Angeles to limit the number of taxi companies while allowing these companies to compete with each other and to grow or contract according to how successful they are in this competition. The minimum standards option means that there is no limit placed on the number of taxicab providers but each one must meet certain standards of customer service, such as a minimum number of taxicabs, a place of business, twenty-four-hour dispatching service, and a maximum age of vehicles. The other two mechanisms are merely ways to expand the total number of taxicab licenses over time if demand increases.

1.5 Deregulation in the Taxicab Industry

During the aftermath of the airline deregulation of 1978 there was a concomitant interest in deregulation of other transport modes, including intercity buses, trucks, railroads, and taxicabs. However, whereas these other modes were regulated at the state and national levels, taxicab regulation is usually a local matter, and hence deregulation was a local decision. In fact, few cities opted for deregulation; Price Waterhouse (1993) found that 21 cities had deregulated their taxicabs prior to 1983 and that no cities were known to have deregulated between 1983 and the time of the Price Waterhouse study in 1993.

Still, these 21 cities--especially Seattle and San Diego--received extensive attention from transportation regulators across the country and were extensively studied (Gelb, 1983a and 1983b; Teal, 1987; Frankena and Paulter, 1984). "Deregulation" in the case of taxicabs almost always has meant "open entry," a term that means a dramatic reduction in requirements that an applicant must meet in order to be granted a license to operate a taxicab. A few cities have also experimented with deregulation of fares, but primarily deregulation has meant open entry into the industry.

These 21 cities show the dramatic differences between economic theory and actual results. Proponents of taxi deregulation argued that open entry would enable new, better operators to enter the taxi industry, thereby instilling more competition which would improve service quality and reduce fares (Frankena and Paulter, 1984). In reality, nearly the opposite occurred as fares increased and service quality declined. New entrants did not enter the industry; rather, existing drivers became independent driver-owners and congregated at airports and hotels. Price Waterhouse concluded, "In retrospect, the effects of taxi deregulation have ranged from benign to adverse."

Dempsey (1996) has presented the theoretical explanation for the differences between the predictions of deregulation proponents and the actual results. He argues that, unlike the other deregulated transportation industries, the taxi industry is characterized by low capital costs and customers who do not have the opportunity to shop among different taxicabs. As a result, in a deregulated environment taxicab operators have a perverse economic incentive to drive down their costs and service quality instead of competing for new customers. The result is a proliferation of owner-drivers who can enter the market without incurring costs for a central office, dispatching, 24-hour service, marketing, and sit at public stands at hotels and airports.

Given the results of the 21 cities' experiences, it is easy to understand why Price Waterhouse found only 4 cities had retained their open entry regulations and that the impetus for re-regulating the industry came first from the airports. The recent actions by Seattle represent a full circle return to regulation after experimenting with open entry and deregulated fares in 1979 (Zerbe, 1984; Lewis, 1995; Avants *et al.*, 1995). The actions of Indianapolis and Cincinnati, however, are noteworthy as the only two cities in the past decade or so that have chosen to deregulate their taxi industries.

1.6 Study Goals/Objectives

This report presents the results of an examination of recent taxicab regulatory changes in three cities: Cincinnati, Ohio; Indianapolis, Indiana; and Seattle, Washington. These three cities are not similar in their regulatory actions. Two of the cities have implemented open entry while the third has moved strongly in the opposite direction. However, given that few large U.S cities have implemented new taxi regulatory policies in the past decade, the actions of these three cities are of considerable interest. As a result, the International Taxicab Foundation has funded this study to examine the impacts of the regulatory changes in these three U.S. cities.

The intent of this study is to provide accurate documentation of why regulatory changes were made in each of the case study sites. The study is also intended to clearly identify and describe the impacts that these regulatory changes have had on service quality, local taxicab fleet operators and drivers, the tourism industry, neighborhood groups, regulatory agencies, and passengers.

1.7 Data Collection Methodology

In conducting this study the research team relied on first-hand information collected on-site in the three cities. Two members of the team visited each city for approximately three days each. In addition the team followed up with telephone calls to gather additional information and to clarify information gathered during the in-person interviews.

The in-person and telephone interviews were conducted in all three cities with key stakeholders, including representatives from: the taxicab industry (fleet owners and taxi drivers); the tourism industry (hotels and restaurants); neighborhood groups; and local taxicab regulatory and enforcement agencies. These interviews were conducted following an interview guide designed to solicit information on three primary issues:

(1) What regulatory changes occurred;
(2) Why did the regulatory changes occur; and
(3) What have been the results of these changes?

By interviewing persons with different perspectives on the taxi industry the study team endeavored to obtain a balanced, objective answer to these three questions.

2.0 Cincinnati, Ohio

2.1 Introduction

The metropolitan area of Cincinnati covers 3,810 square miles and had a 1990 population of 1,744,124. The City supports a variety of public transportation alternatives that includes fixed-route bus and specialized human transportation. Taxicabs are a vital component of the public transportation network. The area is serviced by 499 taxicabs representing 44 taxicab companies. In 1994, Cincinnati adopted a taxicab ordinance that relaxed entry into the market. While this ordinance maintained the public convenience and necessity form of entry regulation, new criteria were inserted which made it much easier for applicants to demonstrate that new services would meet the needs of public convenience and necessity and thus gain entry.

2.2 Historical Changes in Taxicab Regulations - 1940's to 1993

During World War II, a two-tier system for regulating vehicles for-hire was implemented in Cincinnati due to wartime restrictions on fuel, tires, and vehicles. This was the first occurrence of opening entry into the taxicab industry in Cincinnati. In addition to taxicabs that operated throughout the metropolitan area, automobiles for hire were authorized to operate only in suburban locations. Business for the latter operators was generated through telephone calls only; automobiles for hire were not allowed to use taxicab stands. Following World War II, automobile for-hire operators were allowed to become licensed taxicabs.

In 1986, public vehicle regulation was transferred to the Office of Consumer Protection from the Police Department. There were a total of 348 taxicab licenses issued to serve the city. Additional licenses were not issued due to an inability of applicants to prove an unmet need to serve the public convenience and necessity. Yellow Cab of Greater Cincinnati held approximately 275 of the 348 licenses and leased licenses to individual drivers who operate their own vehicle.

In 1987, an individual submitted an application for 80 taxicab licenses and proposed this new company would use new vehicles and outfit drivers in uniforms. At a public hearing, existing taxicab company owners prevailed on the City Council to place a moratorium on issuing new licenses. One council member requested that the Chief of Consumer Protection rewrite the ordinance to better reflect his view of how the taxicab industry should be regulated. The council member who made that request subsequently became mayor.

The City Council dealt with the proposed revisions to the ordinance on a piecemeal basis. The only significant change that was adopted was the addition to the vehicle safety inspection program of an annual mechanical inspection to be conducted by an Automotive Service Excellence (ASE) certified inspector.

During 1988-1993, the City operated under an unofficial cap of 348 taxicab licenses issued.[1] This was an administrative policy decision; no cap on the number of taxicab licenses to be issued was specified in the City ordinance. No additional taxi permits were issued during this time as no applicant could prove the need for additional taxicabs under the public convenience and necessity requirement.

In 1993, Yellow Cab Company of Greater Cincinnati was sold to an owner of approximately 60 taxicab licenses who had been affiliated with the company and whose vehicles wore the Yellow Cab Company colors. During this individual's tenure as Yellow Cab Company owner, there were problems with taxicabs failing mandatory vehicle emissions tests because of disconnected pollution control equipment in 1996. As a result, the federal government levied a large fine against the company, which led to that owner entering bankruptcy and defaulting on his business loan from the previous company owner. Therefore, in 1996, the person who had sold the company in 1993 repossessed the company. As a result of this incident, Yellow Cab Company lost over 100 licenses, and when it was repossessed in 1996 Yellow Cab Company operated 168 taxicabs. It was reported that the publicity generated from the vehicle emissions test failures resulted in an unfavorable perception of the taxicab industry by several local government officials and increased political support for changing taxicab regulation in Cincinnati.

In 1993, just prior to the open entry ordinance, Yellow Cab was the largest taxicab company. Skyline Taxi, the second largest company at that time, operated approximately 75 taxicabs. There were a total of 20 taxicab companies operating 348 taxicabs. There were 8 independent owner-drivers and six with twelve cabs or fewer. About 75 percent of taxicab licenses and about 90 percent of the radio-dispatched taxicabs operating in Cincinnati were affiliated with three companies.[2]

2.3 Motivations For the 1994 Regulatory Change

There were several motivating factors that lead to the 1994 regulatory changes in the City. First, several taxicab license holders affiliated with Yellow Cab Company of Greater Cincinnati as well as drivers from a variety of taxicab companies made City Council members aware of their desire to own and operate their own taxicab company. The mayor and a majority of City Council members came to believe that a greater number of independent owner-drivers should be allowed to participate in the industry. Also, some of these local politicians disliked the practice of "selling" taxicab licenses and believed licenses should not have a value other than that charged by the City.

Another motivating factor was that regulators and City officials believed that relaxing entry requirements would result in an improvement in the condition of taxicabs and an improvement in service, particularly to areas experiencing inadequate service. The City was investigating

[1] "Taxicab Regulation in Ohio's Largest Cities," prepared by the Buckeye Institute for Public Policy Solutions, Dayton, OH, 1997.

[2] Arthur L. Herold, "Statement of Arthur L. Herold: Webster, Chamberlain & Bean, Washington, DC, on Behalf of Consolidated Transportation, Inc., Skyline Taxi, Inc., and Veterans & Best, Inc. Before the Law & Public Safety Committee of the City of Cincinnati," January 29, 1991.

potential means of improving the safety, maintenance, and appearance of taxicabs and improving drivers' appearances through changes to the ordinance regulating taxicab operations.[3]

Taxicab company owners were opposed to open entry because they believed that drivers would start independent companies, generating two unfavorable consequences. First, existing companies would need to recruit new drivers to replace those who left to form their own companies. Second, new companies would not be required to utilize central dispatching, provide 24-hour service, or provide service to all areas within the City. Each of these practices, while enhancing the quality of service, adds to the cost of providing taxicab service. If these requirements were to be deleted from the ordinance, existing taxicab companies would be competing unfairly with new independent operators who would not be required to shoulder the same cost burdens to provide service, leading to an overall degradation in taxicab service. The existing fleets will then have to re-evaluate whether to continue to provide late-night service and to respond to short trip requests.

2.4 Key Provisions of Regulatory Changes --February, 1994

The Cincinnati taxicab ordinance was revised effective February 1994. The 1994 ordinance (Chapter 407: Public Vehicles, Chapter 408: Drivers' Licenses for Public Vehicles) applies to taxicabs, limousines, handicapped livery vehicles, animal-drawn carriages, and pedicabs.

The 1994 ordinance retained the provision that applicants prove a need for service based on "public convenience and necessity" in order to obtain a license. However, the primary criteria specified for public officials to determine if a public vehicle license is to be issued include:

- "Whether the vehicle for which the application is made is a suitable vehicle to be operated as a taxicab...."
- "Whether the applicant's proposal will increase taxicab service in areas of the city where taxicab service levels are deemed inadequate...."
- "Whether the applicant's proposal includes service improvements above the level of service generally available from taxicabs currently operating in the City of Cincinnati."
- "The applicant's history in the operation of taxicabs or other public vehicles in the City of Cincinnati and other communities."
- "The applicant's procedures for inspection and maintenance of its taxicabs."
- "The applicant's training procedures for its drivers."
- "The applicant's rules and regulations governing driver's appearance and conduct."
- "Other matters presented by the applicant or other parties which relate to the issue of the public convenience and necessity which the director deems of value in determining whether the application should be granted or denied."
- "In determining public convenience and necessity the director shall not consider the impact an applicant's business may have on the business of existing license holders."[4]

[3] Ibid.

[4] Cincinnati Municipal Code, Chapter 407: Public Vehicles, Section 407-7: Issuance of Public Vehicle Licenses, February, 1994.

The final criterion has been interpreted as removing any burden of proof on the applicant for showing public convenience and necessity and thereby effectively eliminating any cap on the number of taxicab licenses that the City may issue. Anyone with a vehicle passing inspection and appropriate insurance coverage may now apply for a taxicab license and be likely to be granted a license.

The 1994 ordinance removes any service requirement, including 24-hour service, all-city service, and dispatching service. In contrast, however, to its hands-off approach to service requirements, the ordinance does stipulate a minimum fare of $3 per trip.

The1994 ordinance does not state a cap on the number of licenses that the City may issue. There were 347 taxicab licenses issued and 20 companies in business in 1993 just prior to open entry. Following adoption of the new ordinance, the number of licenses issued quickly rose to 587, and the number of companies in operation rose to 40. The number of independent owner-drivers increased to 19.

In 1998 there are currently 44 companies licensed to operate taxicabs in Cincinnati. Twenty-three of those companies are independent owner-drivers. Another three companies are comprised of an owner-driver plus one or more other drivers who own their own taxicab. There are currently 639 taxicab licenses issued. However, 110 of those licenses are now in escrow for non-usage. Cincinnati is unique among the three cities in placing into an escrow pool licenses that are surrendered, revoked, or not renewed. The City may also place a license in escrow due to lack of an operational vehicle. A license or licenses in the escrow pool may be reclaimed singly, severally, or totally without a showing of need and necessity. A license placed in escrow remains available for restoration to the owner for a two-year period. If the licensee has not restored the license within this two-year period, the license reverts to the City. According to regulatory personnel, escrow of licenses has mostly occurred at small companies operating 1-2 taxicabs.

Table 2.1 shows significant changes in the taxicab industry and in regulations that have occurred in Cincinnati since 1986.

Table 2.1: Significant Changes in the Taxicab Industry and Regulations in Cincinnati

Criterion	1986	1990-93	1994	July, 1997
Taxicab Companies	33	22 (1990) 21 (1991) 20 (1992,1993) 8 independents	40 19 independents	44 23 independents
Taxicab Licenses	348	347 (cap of 348)	587 (cap lifted)	639 of which 110 are in escrow
Licensed Taxicab Drivers	Not Available	1990-91 Not Avail. 1,301 (1992) 1,174 (1993)	1,170	1,007
Fares	Maximum Fares - Amount Not Available[5]	Maximum Fares - Amount Not Available[5]	Maximum Fares - $2 drop, $0.20 per 1/6 mile, $12.00 per hour wait. $3 minimum fare.	Maximum Fares- $2 drop, $0.20 per 1/6 mile, $12.00 per hour wait, $3 minimum fare.
Inspectors	3	3 until 1992 2 after 1993	2	2
Vehicle Inspections	Safety - Semi-Annual	Safety - Semi-Annual	Safety - Semi-Annual	Mechanical - Annual, Safety- Semi-Annual
Liability Insurance Required	Not Available	$100,000 minimum as of 11/19/88	$100,000 minimum	$100,000 minimum

The number of licensed drivers currently fluctuates between 900-1100 (a 15% reduction from pre-deregulation levels). Applicants are examined by the director of safety or his designee as to their knowledge of the provisions of the taxicab ordinance, the geography of Cincinnati, and local traffic regulations through a written examination.

The 1994 ordinance revisions also established a minimum fare of $3 per trip reportedly due to the compact size of the City. A maximum fare structure has been in effect during the 1986-1997 period. Current maximum fares are: $2.00 drop charge, $0.20 per 1/6 mile, and $12.00 per hour waiting time. Fares for trips to locations outside Cincinnati are based on the meter rate plus a surcharge. The total fare rate charged for mileage outside the City limits must be no more than 25 cents per mile in excess of the meter rate.

[5] The taxicab inspector was unable to provide these amounts.

Approximately 20 years ago there were 5 inspectors who, in addition to taxicabs, held responsibility for inspecting City buses. There were 3 inspectors as recently as 1988. The 2 current inspectors have responsibility for oversight of all public vehicle licensing—including limousines, animal-drawn carriages, pedicabs, and handicapped livery vehicles—as well as inspecting taxicabs.

The 1994 ordinance revisions increased the rigor of taxicab inspections. Prior to 1995, taxicabs were subjected only to a safety inspection. Under the current ordinance, taxicabs must pass an annual mechanical inspection by an Automotive Service Excellence (ASE) certified mechanic, plus semi-annual safety inspections by City inspectors. Taximeters are subject to semi-annual inspections. The addition of the mechanical inspection requirement is perceived to be an outcome of Yellow Cab Company operating taxicabs in poor mechanical condition and unable to pass mandatory vehicle emissions tests during the 1993-1994 period. Failure of these tests resulted in the federal government levying a large fine against the company and was largely responsible for the company going into bankruptcy.

Minimum liability insurance on each licensed public vehicle, except handicapped livery vehicles was increased through the 1994 ordinance to $100,000. Handicapped livery vehicles must be covered by a $1 million combined single-limit liability policy (death, personal injury and property damage). There is only one insurance company currently writing coverage for taxicabs operating within the City.

Other current regulations affecting vehicle licenses include:

- Companies providing radio dispatch must secure a public vehicle dispatching office license, at an annual fee of $16. Radio dispatch is not required.
- Twenty-four hour service is not required.
- Licensees holding 25 or more taxicab licenses must apply for additional licenses in blocks of five.
- A reasonable and consistent effort must be made to operate all taxicabs within a given 30-day consecutive period, or the license may be revoked. However, licensees with 10 or more taxicab licenses may keep up to 10 percent of their vehicles out of use. Licensees with less than 10 taxicab licenses may keep one vehicle out of use.
- Licenses may be transferred between licensed owners for a $10 fee.

2.5 Impacts From the 1994 Regulatory Change

2.5.1 Market Share

Prior to the 1994 relaxation of entry there were 20 companies in operation. Yellow Cab Company of Greater Cincinnati, held approximately 275 of the 347 licenses issued in 1993. Due to the 1994 regulatory changes, other taxicab companies were started and/or expanded (Towne Taxi, Around the Clock Taxi, etc.).

There are now 44 taxicab companies legally operating in Cincinnati with the majority of the City taxicab business held by five companies--Yellow Cab Company of Greater Cincinnati (97 licenses), Skyline Taxi (77 licenses), Towne Taxi (45 licenses), Around the Clock Taxi (48 licenses), and Veterans Taxi (21 licenses). Individual license holders are also affiliated with each of these companies—Yellow Cab Company of Greater Cincinnati (4 affiliated licenses), Skyline Taxi (1 affiliated license), Towne Taxi (21 affiliated licenses), Around the Clock Taxi (21 affiliated licenses), and Veterans Taxi (2 affiliated licenses). Twenty-three of the 44 companies possess one license, and several companies provide service primarily to suburban areas.

2.5.2 Disparity Between Services Offered By Large and Small Companies

Fleet owners were critical of the disparity between service provided by the larger taxicab companies and independent owner-drivers. The larger companies provide central dispatching, 24-hour service, and service to all areas within the City. Many independent owner-drivers primarily serve friends and repeat customers within a limited area and do not operate 24 hours or 7 days throughout the week. Suggestions to improve this situation, which were provided by both taxicab fleet owners and a regulator, include:

- ➢ Requiring provision of central dispatching (through either a company or a dispatching association);
- ➢ Requiring provision of 24-hour service;
- ➢ Requiring every company fleet to have a minimum number of taxicabs as a means of helping to ensure that service is available to all areas of the City;
- ➢ Requiring every company to have an office location; and
- ➢ Requiring drivers to log all drop locations.

The purpose of implementing these suggestions is to create an "even playing field" throughout the industry by treating all operators the same while at the same time ensuring customers that all operators meet at least a minimum level of service.

2.5.3 Service

Taxicab owners, regulators, and customers stated that there is currently a need for additional taxicabs in service at night, as shown by the difference between typical wait times during the day and at night which were cited by company owners and customers. Fleet owners reported that the average wait time for service during daytime hours is 15-20 minutes, compared to 1-1-½ hours at night. The reason given for that difference is that few independent owner-drivers work at night, and those who do work nights generally provide service only to known customers. It was also reported that the reason for the lack of taxicabs on Friday and Saturday nights is that the day business is lucrative enough that drivers do not need to drive nights. It was declared that drivers who are willing to work nights are particularly difficult to find in Cincinnati. Several customers stated that the average response time to an address in a public housing project was 45 minutes during daylight hours, but that taxicab service to that neighborhood is often not available after 5:00 p.m. This lack of service has existed for the past four years (since deregulation).

2.5.4 Driver Shortage

All the taxicab company owners interviewed cited a current shortage of qualified drivers. This is the result of the relaxing of regulations on entry to the business, which has resulted in a rather fixed supply of drivers now spread over more cabs. The difficulty of attracting new drivers to the industry is shown through price competition in the daily lease rate charged to drivers by companies. There have been periodic price wars among larger companies in an effort to attract drivers away from other taxicab companies.

Fleet owners stated that current driving record requirements and the prohibition on hiring individuals with a criminal history are excessively strict and prevent some otherwise qualified drivers from gaining work, thereby reducing the potential labor pool.

2.5.5 Other Problems Cited

Deregulation has not led to an improvement in vehicle condition. A regulator expressed the belief that additional enforcement personnel are needed at this time, since the number of enforcement personnel has remained constant for the past five years despite the increase in the number of public vehicle licenses issued. Several customers stated that the poor condition of many vehicles had not improved since the 1994 change in regulation, and service is poor on weekends and at night, especially in poorer neighborhoods. However, enforcement personnel believe that taxicabs are in somewhat better condition now than prior to the relaxation of entry, and credit this improvement to ownership of cars by independent owner-drivers. The taxicab inspector stated there has been no decrease in the number of complaints since entry was relaxed. The inspector was unable to provide the number of complaints received before and after deregulation.

The larger taxicab company owners said that the lack of a requirement for 24-hour, 7 days per week service and central dispatch has created differing expectations for service provided by independent owner-drivers compared to larger companies. As one large company owner stated, "Companies need to provide equal service. Now the four large companies provide service at their expense; other small companies eat the gravy." Providing taxicab service late at night and early in the morning is not profitable but is generally believed to be critical to the community. A regulator believes 24-hour service should be required as a condition of receiving a taxicab license. This regulator believes that independent owner-drivers should be accorded an opportunity to operate their own business, but that the owner-drivers should be held accountable for providing service 24 hours a day. His suggestion of a means to achieve these goals was that independent owner-drivers form groups to reach some minimum required size for a company or association, an approach which Seattle has adopted (Section 4). The association would provide a means of providing sufficient taxicabs to provide 24-hour, 7-day service throughout the city while allowing owner-drivers to operate their own businesses.

One practice that existed prior to the relaxation of entry and persists afterward is taxicab drivers providing service in areas for which they do not hold valid licenses. This problem exists in the greater Cincinnati area on both sides of the Ohio River in both Ohio and Kentucky. Cincinnati-licensed taxicabs, with the exception of 31 vehicles permitted to operate from the Greater

Cincinnati Airport under sublease agreements with Kentucky operators, cannot legally pickup at the airport, which is located in Kentucky. This situation results in deadheading for all Ohio operators except these 31 taxicabs. It also prevents a large influx of independent owner-drivers from obtaining Cincinnati licenses and waiting at the airport with the associated problems of overcrowding, soliciting, litter, etc.

3.0 Indianapolis, Indiana

3.1 Introduction

The metropolitan area of Indianapolis covers 3,532 square miles and had a 1994 population of 1,461,700. The City supports a variety of public transportation alternatives that include fixed-route bus and specialized transportation. Indianapolis implemented a significant change in its regulation of taxicabs with 1994 revisions to the City-County ordinance that allowed open entry into the taxicab business and established a maximum fare structure.

3.2 Historical Changes in Taxicab Regulation - 1970-1993

The unified City/County government was implemented in 1970; creating the Consolidated City of Indianapolis. Taxicab regulation was placed in the Controller's Office. Until the late 1960s, there were 423 taxicabs licensed in Indianapolis. Prior to 1970, the City taxicab ordinance had limited the number of taxicab licenses available by a population ratio of one cab per thousand population. In 1970, that limit was replaced with a ceiling of 600 taxicab licenses. Both prior to and following the 1970 change in the maximum number of licenses to be issued, taxicab licenses were issued based upon a finding of public convenience and necessity. In 1972, 502 taxicab licenses were issued. Red Cab held the majority—approximately 400—of these licenses. Four other companies held approximately 90 licenses, and independent owner-drivers held 10 licenses.

By 1972, Red Cab was experiencing financial and service problems. In 1973, company employees went on strike against the company, and Red Cab entered bankruptcy and ceased operations in August 1973. City officials became concerned about the condition of the local taxi industry as a result of Red Cab's problems. As Red Cab deteriorated, city officials suspected that many licenses were inactive. To curb this practice and to ensure that only active taxicabs were licensed, vehicle inspections were required every 30 days, and licenses of vehicles inactive for over 60 days were revoked.

The taxicab ordinance had stipulated that the City could revoke any permit not in use for over 60 days. This provision was the basis for the revocation and reissuance of permits. The Controller revoked 255 licenses during 1973. Taxicab licenses were redistributed at two periods during 1973 through administrative actions of the Controller's Office. The first redistribution took place in April-May of 1973, when 125 revoked licenses were reissued to new applicants. Ninety-four additional revoked licenses were reissued in April 1974.

All the available licenses were not requested. During the second period of reissuance in April 1974, a total of 466 licenses were issued, compared to the 502 licenses that had been issued in April 1973. There was only one *new* entrant to the taxicab business through these two periods of reissuing licenses. The other 33 recipients of taxicab licenses were individuals from within the taxicab business, many of whom were taxicab drivers. Requirements to provide 24-hour dispatch and to maintain a downtown office were retained but not enforced. There was no

requirement for a minimum number of taxicabs.

In 1985, the Controller's Office again made vehicle licenses available, but there were no applications for licenses. While the City-County ordinance allowed the Controller's Office to issue a maximum of 600 taxicab licenses, the number of taxicab licenses issued was at the Controller's discretion. There were 393 licenses issued in 1985. The Controller believed there was a need for additional licenses at that time; therefore, applications were sought for additional licenses. No applicants came forward.

In 1993, the year prior to Indianapolis/Marion County adopting open entry and maximum fares, twenty-nine taxicab companies were in operation, and 392 taxicab licenses were issued. This represents a decrease in both the numbers of taxicab companies and taxicab licenses from 1974, when thirty-six companies were in operation and 466 taxicab licenses were issued.

3.3 Motivations For the 1994 Regulatory Change

The primary motivation for deregulation of the taxicab industry in Indianapolis came from the City/County government, particularly Mayor Stephen Goldsmith, who held a philosophical view that government services should be privatized and/or deregulated in those instances in which potential economic benefits could be realized. Mayor Stephen Goldsmith formed the Regulatory Study Commission (RSC) through an executive order in 1991. The purposes of this commission were to investigate the feasibility of privatizing many publicly provided services and to revise government regulation of various boards, agencies, and commissions. A total of 61 different municipal services were privatized or deregulated as a result of RSC studies. Taxicab regulation was among the first public services to be examined by the commission. The RSC study of deregulating the taxicab industry focused on opening entry and changing from a City-set fare structure to a maximum fare structure. The study also recommended deleting the requirements for 24-hour service and radio dispatching.

Government officials believed that burdensome regulation should be minimized, allowing market economics to dictate business success or failure. Mayor Goldsmith stated, "The taxi industry is a good example of an area where regulations had completely displaced the economic principles of demand and competition."[6] A former member of the RSC stated that the impetus for investigating deregulation of the taxicab industry were:

- The ordinance was seen as restrictive to entrepreneurial activity. Taxicab drivers wanted to be business owners, and government officials believed the ordinance unfairly prevented this from occurring.
- Prices were fixed. This was the only instance of a price for a service being fixed at the municipal level.

Several taxicab drivers had approached government officials requesting the ordinance be changed to allow entry into the taxicab business with fewer restrictions. The majority of those drivers were African-Americans. Therefore, opening entry to the taxicab industry offered an

[6] "Regulation and the Urban Marketplace," Stephen Goldsmith, Cato Institute, January 1997)

opportunity for government officials both to advance their economic and entrepreneurial philosophy and to respond to pressure to increase minority business ownership.

Supporters of taxi deregulation included the Chamber of Commerce, the Indianapolis Urban League, the Hoosier Minority Chamber of Commerce, the Indianapolis Recorder, downtown hotels and banks, and some medical providers to the elderly. Supporters believed that deregulation would increase the level and quality of taxicab service, reduce fares, and provide small business start-up opportunities. "Proposal 72 was introduced to improve customer service and increase economic opportunity in the local ground transportation industry. In some areas of the city, there is little or no service and the service is not of high quality. This proposal gives everyone an opportunity to benefit."[7]

The improvements to be realized from implementing City Council Resolution 72, as cited by the Regulatory Study Commission[8], were:

- "Open Market Entry:
  The proposal (would) lift the arbitrary cap on the number of allowable taxis.
- Price Competition:
  ...Operators may charge whatever they want below the existing ceiling, meaning the proposal will allow prices to fall, but not rise above the maximum ceiling.
- Job Opportunities for Indianapolis Minorities:
  Disproportionately, the Indianapolis black community is the demographic segment that both depends upon taxis the most, and ... can benefit the most from an opening up of that industry. The people who want and are denied the chance to own their own cabs are overwhelmingly African-American. It is not inconceivable that adoption of Proposal 72 could lead to 100 new black-owned businesses in the first six months.
- An Improved Local Ground Transportation Infrastructure:
  An unreliable and expensive taxi industry hurts retail, restaurant and convention business. An improved taxi industry will have a positive impact upon the entire community.
- Allowing the Creation of a Local Jitney Industry:
  This provision is extremely important to transit dependent people who can not afford the high price or unreliable service of local taxis. In addition, this provision would not only increase employment opportunities by enabling more people to get jobs, it would create jobs and business opportunities in its own industry."

Proponents of opening entry indicated that applicants for taxicab licenses were prohibited by existing regulations from starting their own businesses. In August 1992, the City Controller had attempted to award 39 new taxicab licenses by lottery. That action was blocked by a lawsuit brought by license holders that contended the controller didn't follow established procedure.

A review of the taxicab ordinance shows that it did not prohibit single-vehicle taxicab companies or stipulate a minimum number of vehicles for a taxicab company. The issue was really that

[7] Tom Rose, Assistant to the Mayor for Regulation Affairs, as quoted in The Indianapolis Recorder, Saturday, March 26, 1994.

[8] "City County Council Proposal 72: Improving the Local Ground Transportation Marketplace," Mayor Stephen Goldsmith's Regulatory Study Commission, March 31, 1994.

regulators had not issued additional licenses to applicants. While 392 licenses were issued, the Controller's Office could have issued up to a maximum of 600 licenses. Licenses were issued based on a finding of public convenience and necessity. Regulators did not see a need for additional licenses based on a finding of public convenience and necessity and maintained the number of licenses at a constant level.

All fleet operators opposed the proposed deregulation, arguing that consumer price gouging would result, quality of service would decline, that some taxicab companies would be forced out of business, and that drivers were being misled to believe that taxi service is easy and inexpensive to provide.

3.4 Key Provisions of Regulatory Changes --1994

Prior to implementation of Proposal 72 on July 1, 1994, entry to the taxicab industry was regulated by the need to prove public convenience and necessity, and the City of Indianapolis/Marion County set fares.

The City/County Council voted to adopt Proposal 72 in May 1994, and revisions to the taxicab ordinance became effective in July 1994 allowing open entry and changing to a maximum fare structure. The proposal made these major changes to the taxicab ordinance:

- Eliminated the cap of 600 taxicab licenses;
- Replaced a set fare rate with a maximum rate, although all rates must be posted outside the taxi and with the local government;
- Eliminated the 24-hour service and central dispatch requirement allowing companies to operate part-time;
- Lifted the prohibition against hailing a cab;
- Added licensing requirements for limousines (previously licensed by the State);
- Changed inspection of limousines and jitneys—two mandatory annual safety inspections plus up to three surprise safety inspections where warranted by citizen complaints;
- Increased the permissible operating life of taxicabs from 5 to 6 model years maximum; limousines and jitneys allowed a ten-year maximum vehicle operating life;
- Changed insurance requirements—increased the minimum liability insurance for taxicabs from $100,000 to $300,000, but reduced the required minimum for limousines from $1,500,000 to $300,000;
- Increased the annual license fee to better defray costs of issuing and administering licenses—for taxicabs and limousines from $102 to $152; for jitneys from $25 - $50 to $152;
- Set maximum mileage and wait time rates; and
- Implemented a maximum "pick up" charge similar to a meter drop charge.

The number of taxicab stands in the downtown area was reduced from 35 to 8. It was perceived that some taxicab stands were taking space that could be better used for parking. A business organization stated that the need for taxicabs to wait in line at stands created traffic congestion

on some downtown streets, and that organization now states that the congestion no longer exists. It is impossible to state that the elimination of the requirement for taxicabs to pick up customers only at stands in the downtown area was totally or partially responsible for this change.

It should be noted that while the 1994 ordinance deregulated the taxicab industry, it actually began the municipal regulation of the limousine industry, requiring licensing of limousine and jitney operators and requiring inspections of limousines and jitney vehicles as well as taxicabs. The current ordinance (Chapter 996: Public Vehicles For Hire) applies to taxicabs, limousines, and jitneys.

Table 3.1: Significant Changes in the Taxicab Industry and Regulations in Indianapolis

	Prior to 1973-74 Redistribution of Permits	After 1974 Redistribution of Permits	Prior to Open Entry in 1994	1996	Current
Taxicab Companies	10 (5 Co.'s, 5 Indep.)	36 (4 Co.'s, 32 Indep.)	29 (3 Co.'s, 26 Indep.)	123 (83% one or two cab operations)	106 (2 major co.'s, 104 small co.'s and indep.)
Taxicab Licenses	502 *Cap at 600.* (492 major—302 Red Cab, 51 Yellow, 139 other firms; 10 Indep.)	466 *Cap at 600.* (0 Red Cab, 151 Yellow, 158 other firms, 157 Indep.)	392 *Cap at 600.* (201 Yellow, 66 Indep., other co.'s Not Available)	460 *No cap.* (172 Yellow, other co.'s and independents Not Available)	372 *No cap.* (173 Yellow, 20 Hoosier, 179 Indep.)
Licensed Taxicab Drivers*	Not Available	Not Available	Not Available 631 (1992)	Not Available	Not Available
Fares	Records Not Available**	Records Not Available**	$0.95 drop, $0.30 per 1/5 mile, $0.30 per minute wait after 1st 3, $6.50 min. Airport.	Pick-up charge (amount not specified), plus $0.40 per 1/5 mile, $0.40 per minute wait, $5 downtown flat fare.	Pick-up charge (amount not specified), plus $0.40 per 1/5 mile, $0.40 per minute wait, $5 downtown flat fare.
Inspectors	1	1	1	1	1
Vehicle Inspections	Not Available	Safety - 4 per year; meter –monthly	Safety—3 per year; Meter—3 per year.	Safety—2 per year plus up to 3 unscheduled, Meter—2-5 per year.	Safety—2 per year plus up to 3 unscheduled, Meter—2-5 per year.
Minimum Liability Insurance	Not Available	Not Available	$100,000	$300,000	$300,000

*Information unavailable on number of licensed drivers due to the method of record keeping. Controller's Office

tracks only the number of new and renewal applications processed within a given year, and licenses are valid for a 2-year period. License period runs from applicant's birthday to birthday. The number of new/renewal driver's license applications for the past 4 years is: 1993—155, 1994—330, 1995—242, 1996—367, 1997—313. As of March 1998, 648 public vehicle for hire driver's licenses were issued. The 1998 figure includes both taxicab and limousine drivers.

**Information on fares and minimum liability insurance was unavailable from the Controller's Office. An historical record of this information is not maintained.

The number of taxicab permits increased initially following the 1994 deregulation but has since decreased to less than the number prior to opening entry. Thirty-two companies started within the six months following opening entry, and 75 percent of these companies were minority- or woman-owned. From opening entry in 1994 to 1996, the number of taxicab permits increased from 392 to 460. City records show that 83 percent of new entrants were small, one-or two-cab operators.

However, the number of taxicab companies decreased from 123 in 1996 to 106 in 1997. The number of taxicab permits also decreased, from 460 in 1996 to 372 in 1997. It is difficult to attribute the relative contributions of several factors to this decrease. Other forms of for-hire transportation have become available in Indianapolis. For example, jitneys are now permitted to operate in Indianapolis-Marion County. However, it was reported that no jitneys are operating in the city. Limousines increasingly compete with taxicabs, particularly in the airport market. Prior to 1994, there was a cap of 75 limousine licenses; there is no cap on the number of limousine licenses under current regulations.

While the number of taxicab companies has grown from 29 to 106 under the most recent open entry, the number of active taxicab licenses has actually decreased from 392 in 1994 to 372 currently.

The number of licensed taxicab drivers is difficult to calculate due to City/County record-keeping procedures. City/County Government officials were unable to provide an exact number of active taxi driver licenses as the Controller's Office tracks only the number of new and renewal applications processed within a given year. However, officials did state that at the end of 1992, 631 persons were licensed as taxicab drivers and there are currently 648 taxicab and limousine driver's licenses.

Complete historical fare information is not available from the Controller's Office. The rates shown for 1994, prior to enacting open entry, are accurate; however, the taxicab inspector believes that this rate had been increased just prior to that time. He was unable to confirm this or to provide the date of the increase or the previous fare rates.

Regulation of taxicab fares has changed from a government-set uniform fare to a government-set maximum fare. Prior to the July 1, 1994, regulatory changes, the taxicab ordinance set fares as follows:

- 95 cents drop charge (base rate), 30 cents per each 1/5 mile, 30 cents per minute wait time after the first 3 minutes.
- $18.00 per hour plus $1.50 per mile in excess of 12 miles in any hour.
- $6.50 minimum fare originating from airport.

After July 1, 1994, fares were subject to the following maximum amounts:

- 1994: An undefined base rate plus 33 cents per each 1/5 mile, extra passenger 55 cents, 33 cents per minute wait charge.
- 1995: Base rate plus 36 cents per each 1/5 mile, extra passenger 60 cents, 35 cents per minute wait charge.
- 1996 and after: Base rate plus 40 cents per each 1/5 mile, extra passenger 65 cents, 40 cents per minute wait charge.

One should note that no fixed or maximum charge is specified for the base rate for 1994 through the present. Each company establishes its base rate. Fares may not be changed more than once each calendar quarter. Current base rates range from $1.25 to $5.00. The two largest companies, as well as most independents, charge a $1.25 base rate.

A flat fare of $5 is now an option for travel within the downtown area. Customers *may* request that the meter be used instead, which in many cases results in a lesser expense, due to the compact size of the downtown area.

Historical information on the median base rate is not available; the Controller's Office does not track median rates or calculate them on an annual basis. This is due to the difficulty of compiling and computing such statistics due to the frequency of taxicab companies entering and leaving the market.

The number of taxicab inspectors has remained at 1 since 1994. Both vehicle safety and meter inspections were required 3 times per year prior to July 1, 1994. Vehicle safety inspections are currently required to be conducted only semi-annually.

The minimum liability insurance requirement prior to July 1, 1994 was $100,000. Effective July 1, 1994, the minimum liability requirement was increased to $300,000.

3.5 Impacts of the 1994 Regulatory Change

There are differing opinions on the success of the most recent open entry in Indianapolis. The three greatest objectives cited by regulators, fleet owners, drivers, and business and hospitality organization representatives to be realized from deregulation of the taxicab industry were:

- To increase business opportunities for those desiring to operate their own taxicab businesses, particularly members of minority populations;
- To improve customer service; and
- To open the for-hire transportation market to a variety of service options.

The first objective initially appeared to be partially accomplished, as shown by the increase in the number of taxicab operators and the initial growth in the number of permits issued through

1996. However, the more recent decrease in the number of taxicab permits and taxicab operators does not support accomplishment of this objective. It should be noted that this objective is not a *transportation* objective.

Opinions vary as to the success in accomplishing the second objective. Business and hospitality organization representatives that supported deregulation believe that (at least initially) overall customer service had improved, as shown in the following statements.

"Within 6 months of deregulation, the city reported 32 new companies had started, three quarters of which were owned by minorities or women. Pick up rates were 12% lower for new companies compared to existing companies. Average mileage rates were 3% lower, and the average rate for the first mile was 7% lower."[9]

Eight months following deregulation, Indianapolis Downtown, Inc. (IDI) supported "the Council's ongoing support of taxi ordinance 76 (sic). Through deregulation, we've recognized improvements in the following areas:

- Increased the number of individual taxicab owners/entrepreneurs.
- Improved visibility of rate by posting on outside of taxi.
- Improved quality standards. Newly licensed taxis are clean and well-maintained.
- Improved access to taxis. Customer/visitors can now "hail" a cab.
- Opened market to more limousine service."

"IDI believes a deregulated taxicab industry is essential to its ultimate success as an affordable and efficient people mover. The positive market forces from deregulation are evident. However, taxi cabs in Indianapolis have yet to reach their highest potential as an everyday mode of transportation for our citizens and visitors.[10]"

However, IDI also recommended three changes to improve customer service. Those changes included elimination of the $5.00 "Downtown zone" fare, moving a taxi zone, and incorporating a "requirement to place a window slick inside the back seat taxi window which says "Thank you for visiting Indianapolis...How's my service? 327-5411"[11] A spokesperson for Indianapolis Downtown, Inc., stated that none of these recommendations has been implemented. IDI has not commented since the number of taxis fell below pre-deregulation levels, but local fleet operators stated that the reduction in total number of taxis is an objective measure of the decline in customer service being provided to the citizens and visitors to Indianapolis.

Regulators are unsure if customer service has improved since 1994, as the City/County does not maintain a historical record of the number of complaints recorded. A regulator stated that the number of complaints has increased. However, most of these complaints involved customers' perceptions of having been charged an excessive fare. Checks by the taxicab inspector have

[9] Ordinance 72 Update, Regulated Competition in the Indianapolis Ground Transportation Marketplace, Economic Development Committee, January 19, 1995.
[10] From a letter written by Helen L. Brown, Director, Management Services, Indianapolis Downtown, Inc. to Dr. Philip Borst, Councilman—25th District, dated March 21, 1995.
[11] Ibid.

shown that in most instances, fares were charged correctly. With the maximum fare structure, trip fares can vary depending upon the fare charged by a particular operator. The second most prevalent type of complaint is that a driver did not know a destination address or took an excessively long route.

To respond to these complaints, the taxicab inspector modified the driving test in 1997 to determine better a driver's ability to locate specific addresses. Driver applicants are now asked to drive to one or more street addresses as opposed to a hotel or attraction. One regulator believed that there has been no change in service to poor, minority neighborhoods and to individuals with disabilities. Taxicab company owners stated they did not believe service quality had improved since open entry was implemented.

In terms of meeting the third objective, opening the for-hire market to additional service options, there are now fourteen limousine companies in operation. Regulators and airport staff stated there is increased competition from limousine service at the airport. Paratransit services have also been deregulated; regulators speculated that unlicensed neighborhood jitneys may offer increased levels of service in some areas. No jitney companies are or have been licensed by the city. However, at least one medium-sized taxicab company and numerous independent owner-drivers have left the taxicab industry in Indianapolis within the past three years.

3.5.1 Market Share

There was, and continues to be, extensive competition in the taxicab market. The number of taxicab companies operating in Indianapolis increased threefold following the periods when permits were redistributed in 1973-74. In April 1972, ten taxicab companies operated in Indianapolis—nine companies (A Cab, Duncan Cab, J Cab, Lawrence Cab, Northside Cab, State Cab, Yell-O-Taxi, Yellow Cab, Yello Taxi) plus one independent dispatching association. In April 1974, 36 companies were in operation—4 large firms plus 32 independent owner-drivers.

The number of taxicab companies remained relatively stable through June 1994, when 29 companies were in operation. The three largest companies at that time were Yellow Cab (201 licenses), Metro (41 licenses), and Hoosier (50 licenses).

Following adoption of Proposal 72 in July 1994, the number of taxicab operators initially grew to 45 companies. Currently, 106 companies provide taxicab service in Indianapolis/Marion County. The largest company is Yellow Cab (172 licenses). Other companies include Yell-O-Cab, Hoosier Cab, Union Cab, Budget Cab, Airline Cab, Reliable Cab, and A1 Taxi. There are now approximately 30 companies that operate only one or two taxicabs.

The number of active licenses now issued (372) is less than the total number of licenses issued in April 1974 (466). The number of licenses has fluctuated throughout the past 25 years, reflecting both changing regulations and changing conditions in the private, for-hire transportation industry. For example, in November 1979, 360 licenses were issued (Yellow Cab—156, Northside—71, consortium of State Cab/ Metro Cab/Carver Cab/several independents—68, other independent owners—65). In June 1994, prior to implementation of the revised ordinance, the number of taxi licenses was capped at 600 and there were 392 licenses issued (Yellow—201,

Metro—49, Hoosier—42).

3.5.2 Taxicab Company Business Failures

Some taxicab companies, particularly those with 20-50 licenses and which provided 24-hour, 7-day, radio dispatch service, were placed in a position in which they did not have sufficient resources to compete effectively with Yellow Cab and the independents for business. Those companies were not able to provide service effectively throughout the entire area and at all times of every day. Medium-sized companies also lack the flexibility and low operating costs enjoyed by independent owner-drivers. The exit of Northside Cab Company (the third largest fleet) from the taxicab business was attributed to conditions resulting from provisions of the 1994 ordinance. Yellow Cab and Hoosier Cab are the only companies now providing radio dispatch and service to all areas of the City. The owner of another company that has been in business for ten years is now considering closing that business due to lack of profitability.

Several owners and regulators stated that many taxicab businesses started by individual owner-drivers have failed within one year of start-up. Some regulators who advocated deregulation admit that success has not been as positive as had been hoped, citing the many companies entering and leaving the market. Some of these business failures were attributed to the inability of some independent owner-drivers to replace their single vehicles when they reached their maximum age threshold of six model years.

3.5.3 Fares

According to fleet owners, deregulated fares cause confusion with customers. Visitors arriving at the airport are directed to the first vehicle in the taxicab queue. Visitors may not realize that fares can differ among taxicab companies.

Several regulators and representatives of the business community believe that the $5 downtown fare should be abolished in favor of a return to using metered fares. Metered fares are less expensive than $5 for many trips within the downtown area, and the use of metered fares would result in cost savings for many customers. Interestingly, Indianapolis Downtown, Inc., which had advocated implementation of a Downtown Zone in 1994[12] reversed that position in 1995, and recommended charging by the meter within the downtown area.[13]

An airport representative said that fares have increased since they were deregulated. A study of fares done two years ago (after deregulation) showed Indianapolis among the 15 most expensive cities in the US for taxicab fares. As a result, airport staff stated they may investigate the feasibility of requiring lower fares for trips originating at the airport.

An examination of inflation-adjusted fare amounts shows that fares have risen a faster rate than the Consumer Price Index (CPI) for the 1993-1996 period. The cumulative increase in the CPI

[12] From an attachment to a letter from Helen L. Brown, Director, Management Services, to Dr. Philip Borst, Councilman, dated March 28, 1994.

[13] Letter from Helen L. Brown, Director, Management Services, to Dr. Philip Borst, Councilman, dated March 21, 1995.

was 8.6 percent for the period. Using this multiplier, the 1993 fares of $0.95 base rate, $1.50 per mile, and $18.00 per hour wait time would increase to $1.03 base, $1.63 per mile and $19.55 per hour wait in 1996. This is significantly less in all categories than the 1996 actual prices of $1.25 base rate (typical charge used by most operators, although this rate varies from $1.25 to $5.00), $2.00 per mile, and $24.00 per hour wait.

3.5.4 Qualified Drivers

Indianapolis, similar to Cincinnati, is enjoying a period of economic growth and low unemployment. In addition, many drivers for larger companies have started their own taxicab businesses. Owners of two of the larger companies in Indianapolis cited difficulty in acquiring sufficient numbers of qualified drivers. There is a relatively fixed pool of taxi drivers that is now serving a greater number of companies. Regulators acknowledged this problem. In 1994 alone, 40 Yellow Cab drivers started their own businesses. Another company owner mentioned the loss of approximately one-third of that company's drivers over the past three years, stating many of those drivers had become independent owner-drivers.

3.5.5 Other Problems Cited

It has been reported in the media that some drivers are unable to communicate effectively in the English language and are unable to comprehend customer requests.

Regulators and two taxicab company owners believe the lack of requirements for radio dispatch, 24-hour, 7-day service, and a central office location have resulted in the creation of a two-tier system of service. Larger companies provide service to all areas of Marion County at all times, and independent owner-drivers provide service at times and to areas at the discretion of individual drivers. A regulator also stated that the lack of a requirement in the taxicab ordinance for a central office location has made it more difficult for enforcement personnel to contact taxicab operators.

Finally, company owners believe that the lack of hiring additional enforcement personnel concomitant with the initial increase in the number of licenses resulted in insufficient enforcement activity. The Controller's Office is now responsible for administering and enforcing regulation of limousine and jitney companies in addition to taxicab companies.

4.0 Seattle, Washington

4.1 Introduction

The City of Seattle covers 84 square miles and had a 1995 population of 532,900. The Seattle metropolitan area (King, Kitsap, Pierce, and Snohomish Counties) contained 3,020,000 people within a 6,300 square mile area. The City supports, though a regional transit authority, a variety of public transportation alternatives that include fixed-route bus, specialized transportation, and light rail. In 1979, both the City of Seattle and King County opened entry and allowed taxicab companies to set their own rates. Seattle permanently closed entry in 1991; King County followed in 1992. In 1996, the City of Seattle revised its ordinance to implement a minimum standards taxi regulatory approach.

4.2 Historical Overview of Taxicab Regulatory Changes - 1979-1996

Prior to 1979, King County and Seattle each regulated both taxicab entry and rates. Entry was restricted according to a population ratio, and the City and County Councils set rates. In 1976, King County, the City of Seattle, and the Port of Seattle embarked on a program to regionalize taxicab regulations and licensing. The intent was to standardize fees and regulations, enforcement, and rate review procedures while maintaining adequate service levels throughout the county. For example, the County and the City allowed reciprocal licensing for vehicles and drivers.

In 1979, the County and the City passed ordinances opening entry and deregulating fares. Deregulation resulted in problems peculiar to each jurisdiction. For example, the airport had a surplus of taxicabs and problems with taxi drivers refusing short fares and poor conditions of taxicabs. The County and the City found that open rate setting resulted in severe abuses as evidenced by one company filing a $10 drop, $50 per mile charge. Each jurisdiction passed ordinances or implemented procedures to address these unique concerns. However, the variance in rates among different taxicab operators created consumer confusion resulting in a consumer perception of price gouging. It was not unusual for a traveler to pay a different return fare for transportation between the airport and downtown. Many taxicabs were also perceived to be in poor condition (Zerbe, 1983; Lewis, 1995; Gelb, 1983a).

In 1984, in response to these problems, the County returned to regulated entry by placing a moratorium on the issuance of new taxicab licenses and returned to setting taxi rates by ordinance. The City maintained open entry but limited fares by implementing a taxi rate ceiling. The County's entry moratorium expired in 1985, returning the County to open entry; however, fares continued to be set by ordinance. Also, in 1985, the Port placed a moratorium on the issuance of permits to operate at Sea-Tac Airport. This was because the number of airport permits had grown to 236, a number that airport staff deemed excessive. Airport staff stated that there was confusion among customers from the variance in fares, the poor condition of taxicabs, and poor customer service that resulted from deregulation. The airport, as a major market, had attracted a great number of taxicabs, creating long waits for drivers between trips. The airport

implemented the moratorium in response to these conditions as one step in an overall process to improve airport taxicab service. The Seattle-Tacoma International Taxicab Association (STITA) was formed in 1989. The purpose of forming this association was to place all taxicab operations at the airport under the aegis of a single entity, facilitating administration of ground transportation services. This association became, and remains, the sole taxicab operator licensed at the Sea-Tac International Airport.

King County placed a moratorium on the issuance of new taxicab licenses in 1986, when an Ad Hoc Taxi Committee was formed to study and recommend a method for determining the optimum number of taxis to operate in the County. The ordinance was revised as a result of the work of that Committee. First, a moratorium was placed on the issuance of new taxicab licenses. Second, a process was developed to establish rate and entry recommendations based on objective data. The County began to gather revenue and expense data on a quarterly basis from each licensed taxicab owner in July 1, 1988. These revenue/expense data were used by the County to establish an average net profit, which provided regulators with an indication of the industry's financial health and viability. When these data were contrasted with optimum and actual service response times, regulators could develop a better-informed view of the taxicab industry.

A Regional Taxicab Commission, which included representatives from King County, the City of Seattle, and the Port of Seattle, was formed in September 1988. The purpose of this Commission was to recommend taxicab rates, entry restrictions, and other related revisions to the King County Code. Recommendations on entry were submitted in February 1990. Those recommendations included increased standards for licensing and operations of taxicab vehicles and for-hire drivers. The Commission's term expired on December 31, 1990, before final rate recommendations were submitted. The Executive Staff of the County and the City jointly drafted an ordinance incorporating many recommendations of the Regional Taxicab Commission in the fall of 1990.

On January 14, 1991, the City of Seattle adopted Ordinance No. 108357, limiting entry in the City. The King County Council passed Ordinance No. 9986 on June 10,1992, restricting entry in the County effective September 6, 1992.

On August 17, 1992, the County Council passed Ordinance 10498. In addition to raising fares from $1.20 base rate/$1.40 per mile to match the City meter rate of $1.80 base rate/$1.80 per mile/$.50 per minute wait, this ordinance:

- Continued entry restrictions;
- Capped the number of taxicab licenses at 561;
- Changed the quarterly data collection process to an annual filing;
- Eliminated the mandated use of the net profit ratio in rate and entry recommendations;
- Enhanced the mechanical certification process, and safety and sanitation requirements for vehicles;
- Increased the number of mandatory safety inspections; and
- Increased for-hire driver standards for entry.

The impetus for this change to greater regulation came from the tourism and hospitality industries. Both the hospitality industry and City regulators stated there was a lack of control over taxicabs. Fare rates were not standardized and could be set at excessively high levels, some drivers lacked English language skills, some drivers lacked sufficient geographic knowledge to drive customers to requested destinations, and some drivers refused short trips.

In August 1995, King County and the City of Seattle entered into an interlocal services agreement. This granted authority for the County to issue City of Seattle for-hire driver's licenses as an agent for the City, and for the City to issue County taxicab vehicle licenses as an agent for the County. In addition, the agreement granted authority for County licensing inspectors to enforce the City taxi code as agents for the City and for City licensing inspectors to enforce the County taxi code as agents for the County. This specialization allows licensees to apply to only one agency to obtain both licenses.

4.3 Motivations Leading to Additional Regulation in 1996

By the mid 1990s, several downtown businesses, such as the Westin Hotel and Clipper Navigation, and organizations representing business and tourism interests requested increased regulation of taxicabs. Spokesmen for the business and tourism industries indicated that many taxicabs were in poor condition, some drivers lacked geographic knowledge of the City, some passengers with short trips were refused service, and some foreign guests were not transported via the shortest possible routes. Passengers complained that fares were inconsistent, i.e., one fare was charged from the airport to a given hotel and another fare was charged on the return trip to the airport. In addition, some drivers were reported to lack English language skills. The mayor and several council members were supportive of a more cooperative and coordinated regulatory effort between the County and the City. Some members of the taxicab industry also believed additional regulation would be beneficial to the industry.

These problems were determined by the City to be artifacts of the 1979 open entry, after which many independent owner-drivers entered the Seattle taxi market. Despite the various steps taken by the city, county, and airport to re-impose entry restrictions, there were in 1995 approximately 210 independents and 7 companies operating in Seattle. Most of these operators had no place of business and could not easily be located by the one on-street taxi inspector. Recognizing the magnitude of the service and enforcement problem it faced, the city brought in a peer review team of current and former taxi regulators from other cities. This team issued a report that called for increased self-enforcement by the industry (Avants *et al.*, 1995). The ordinance enacted by the city in 1996 implements the recommendations of the peer review team.

4.4 Key Provisions of the 1996 Regulatory Changes

In fall 1996, the City of Seattle changed its taxicab regulations effective January 1, 1997. The City ordinance contains some new requirements that move the city significantly toward tighter control over service quality and greater industry self-enforcement. Most significantly, taxicab license holders are now required to belong to associations, associations are required to meet

service standards such as providing dispatching, providing twenty-four-hour service, having at least 15 cabs, and using the same color scheme, trade name, and dispatch services. Radio dispatch is required for all taxicabs operating in the city. This requirement can be met by use of a mobile radio telephone service until December 31, 1999. After that date, the requirement can only be met by using two-way radio communication. Each association is also held responsible for the services of its affiliated cabs through a point system for rule infractions.

It should be noted that this new ordinance does *not* restrict entry. Each association may grow without limit, so new operators can always enter the market. Likewise, there in no limitation on the number of associations, so new associations can be created at any time. Taxicab associations must:

- Maintain a business office which is staffed between 9 am to 5 pm;
- Ensure that each affiliated taxicab is insured as required;
- Accept on behalf of any owner or driver of an affiliated taxicab all correspondence from the Director of the Department of Finance (taxi regulator) to that owner or driver;
- Collect and provide information on operations and customer complaints; and
- Pay all penalties that are assessed against the association, affiliated taxicab licensees, or affiliated drivers.

Associations may be comprised of one or more companies and/or "independent taxicabs". An "independent taxicab" is defined as "a taxicab that, prior to October 1, 1996, shared a central dispatch service with 9 or fewer other taxicabs. Independent associations now include Emerald City Taxi, Northwest Taxi, and Royal Taxi.

The City also required all drivers to retake the written examination and demonstrate English language proficiency to renew their license. These changes affect approximately 50 percent of County licensees who hold City licenses as well as County licenses.

Refer to Table 4.1 for a summary of changes from 1979 to the present.

Table 4.1: Significant Changes in Taxicab Industry and Regulations

Criterion	Prior to Open Entry in 1979	During Period of Open Entry (1979-1984)	Prior to Limiting Entry in 1991	Current
Taxicab Companies or Associations	57	~80-85	7 Companies, 210 independents	10 Associations
Taxicab Licenses	421 City 402 County	~520 City 426-648 County	City Not Available, 561 in County	645 City, ~850 County (includes Co. only and combined Co./City 166 Airport
Licensed Taxicab Drivers	Not Available	Not Available	1329 Total	1,865 Total 446 Co. only 818 Co. w/ City Endorse. 601 City only (Drivers may affiliate w/up to 3 assoc.)
Fares	County: $0.90 drop, $0.70 per mile, $0.12 wait per minute.	County: $1.00 drop, $1.20 per mile, $0.30 wait per minute, $0.50 extras.	County: $1.20 drop, $1.40 per mile, $0.35 wait per minute, $0.50 extras over 2.	City/County: $1.80 drop, $1.80 per mile, $0.50 wait per minute, $0.50 extras over 2.
Inspectors	Not Available	Not Available	1 City 1 County	1.5 City 1 County
Vehicle Inspections	Not Available	Not Available	Safety: 2 per year; Meter: once per year.	Mechanical: Annual, by ASE certified mechanic; Safety: up to 3 per year; Meter: once per year.
Minimum Liability Insurance Required	Not Available	Not Available	Not Available	City: $50,000/accident; $25,000/person; $50,000 property.

There was one taxicab association in operation prior to implementation of the revised Seattle and King County ordinances in 1991. The Seattle Tacoma International Taxicab Association (STITA) served as a model for the taxicab associations now required in the City of Seattle. The City has changed from regulating 106 companies and independent owner-drivers prior to January 1, 1997 to ten associations to enhance control and service.

The number of vehicle licenses increased throughout the period from 1979 to the present. Exact numbers of vehicles licensed in each jurisdiction are not available for all periods. Also, some vehicles are licensed for operation only in King County. Other vehicles are licensed for operation only in the City of Seattle. Some vehicles carry joint licenses. In addition, vehicles licensed to operate at Sea-Tac International Airport may be licensed to operate in either or both of the other two governmental jurisdictions. Compounding this confusion, under the interlocal service agreement of August 1995, King County now performs all driver licensing, and the City of Seattle now performs all vehicle inspections for both jurisdictions. There are currently 645

City-only licenses, approximately 850 County-only and combined City/County licenses. Of the 166 Airport licenses currently issued, 13 have City endorsements; the remainder have County endorsements.

The same inter-jurisdictional conditions apply to driver licensing. There are a total of 1,865 taxicab drivers now licensed. Of that total, 446 have County only licenses, 601 have City-only licenses, and 818 have County licenses with a City endorsement.

Uniform fares now apply to both King County and the City of Seattle. Both the City and the County deregulated fares in 1979, allowing taxicab drivers to set their own rates. In 1984, the County returned to established fare rates, and the City created a rate ceiling. The City adopted its ceiling rate as the established fare rate through the 1991 ordinance. In 1992, the City and County fares became identical. Note that this uniform rate is a result of circumstance, not a requirement of current regulations. City and County officials expressed the belief that a common fare rate is likely to become adopted as part of both ordinances in the near future as part of continuing efforts to coordinate taxicab regulation in the area.

Both the City of Seattle and King County have typically employed 1-2 taxicab inspectors during the past 20 years. There are currently one County Inspector and 1.3 City Inspectors, with plans to hire another City inspector at 50% time.

A semi-annual safety vehicle inspection was required for both City- and County-licensed vehicles until 1995. At that time, an annual safety inspection performed by an ASE-certified mechanic became an additional requirement. Up to 3 safety inspections may be performed on vehicles in one year, based upon violations cited at the initial inspection. Taximeters are inspected annually. The City under the auspices of the 1995 interlocal service agreement now performs all vehicle inspections for both the City and the County.

Current requirements for vehicle insurance coverage are a minimum of $50,000 per accident, $25,000 per person, $50,000 property damage. These requirements have not changed for several years. Certificates of Insurance must now include coverage for underinsured motorists ($25,000 per person, $50,000 per accident).

4.5 Impacts of the 1991-1996 Regulatory Changes

4.5.1 Taxicab Associations

City regulations effective January 1, 1997 required all City-licensed taxicabs to belong to a taxicab association as of May 1, 1997, effectively ending autonomous operation by independent owner-drivers. Independent owner-drivers may still own and/or operate taxicabs in Seattle but must be members of an association. A "Taxicab Association" is defined as "a person or organization licensed ...that represents or owns at least 15 taxicabs licensed by the City that use the same color scheme, trade name, and dispatch services. An individual person may be a taxicab association as long as that individual owns or represents at least 15 taxicabs and

otherwise meets the requirements of (the City taxicab ordinance)"[14].

Taxicab associations provide a mechanism for increased supervision of drivers, for making taxicab service more customer-focused, and for enabling taxi operators to grow according to how well they serve the public. They also bear some responsibility for the conduct and performance of their member taxicabs. Taxicab associations are assessed penalty points for specific violations of the ordinance, vehicle, and safety standards. Violations are classified according to three levels of severity. Class A violations are the least severe, and involve violations of vehicle standards, such as failure to carry a map of Seattle and the region published within the last two years, or operating requirements, such as failure to maintain a business telephone in working order during all hours of operation.

Class B violations are moderate in severity, and involve infractions of vehicle safety standards, and lack of adherence to procedural requirements for associations. Class C violations are the most severe, and include operating without a valid vehicle insurance policy or valid licenses[15].

Monetary penalties are assessed against a for-hire driver or the owner of a taxicab or for-hire vehicle for each Class A, B, and C violation found away from the City's inspection facility. These monetary penalties range from $30 for the first Class A violation in a year to $1,000 for all Class C violations. A vehicle re-inspection fee is assessed against a for-hire driver or the owner of a taxicab or for-hire vehicle for each Class A, B, and C violation found at the City's inspection facility. Penalty points are assessed against the driver or vehicle owner's taxicab association for all violations. Penalty points range from 2 points for the first Class A violation against an affiliated driver or vehicle owner in one year, to 20 points for all Class C violations by an affiliated driver or owner.

In addition to accumulating penalty points for violations attributed to affiliated drivers and owners, associations may also be assessed penalty points for violations attributable to association actions. If an association accumulates more than 5 penalty points per affiliated vehicle, on average, it must pay a penalty of $100 per affiliated taxicab. An accumulation of more than 7 points per affiliated vehicle, on average, results in an additional penalty of $150 per affiliated taxicab. An accumulation of more than 10 points per affiliated vehicle, on average, results in an additional penalty of $250 per affiliated taxicab. Penalty points are accumulated on an annual basis, according to a September 1 through August 31 schedule.

4.5.2 Market Share

There are now a total of ten taxicab associations operating in the City of Seattle. In addition to STITA (166 licenses), associations now include: Emerald City Taxi (20 licenses), Farwest Taxi (117 licenses), Graytop Cabs (123 licenses), North End Taxi (24 licenses), Northwest Taxi (20 licenses), Orange Cab (99 licenses), Rédtop Taxi (15 licenses), Royal Taxi (38 licenses), and Yellow Cab (176 licenses).

[14] Seattle Municipal Code, Chapter 6.310.110V, October 21, 1996.
[15] Refer to Seattle Municipal Code, Sections 6.310.320 and 6.310.330 for complete details of violations and their classification.

There has always been a lot of competition in the Seattle taxi industry. There were 57 companies operating prior to implementation of open entry in 1979. During the period of open entry in both the City and County from 1979-1984, approximately 80-85 companies were in operation at any given time. Just prior to the recent regulatory change in 1996, there were 7 companies plus 210 independent owner-drivers in the city.

4.5.3 Vehicle Age Limit

An eight-year maximum vehicle age requirement is being phased in over a three-year period from 1997-1999. The current maximum allowable vehicle age of nine years applies through August 31, 1998. As of September 1, 1999, no vehicles greater than eight model years in age will be allowed as taxicabs in the City of Seattle. This vehicle age limit does not apply to King County taxicabs.

4.5.4 Customer Complaints

Under the new ordinance, passenger complaints involving a City-licensed taxicab are forwarded to the appropriate driver, vehicle owner, and association for resolution. Written responses from all these parties are required within 10 days of receipt of the complaint. If a response is not received, the allegation is deemed to be true, and the City may then take disciplinary action. King County specifies an identical process with the exception of the involvement of the taxicab association, as membership in an association is not required for County-licensed vehicles.

The number of complaints of poor service from downtown hotels and the Port has decreased since additional regulatory requirements were imposed in 1996. The Westin Hotel no longer requires a special decal in order for a taxicab to provide service on its property. A representative from Clipper Navigation stated that his company has heard fewer complaints about poor taxicab service since association membership became required for taxicab operators. City staff have not noticed a significant reduction in the number of formal complaints received directly from dissatisfied customers. There are no records of the numbers of complaints received.

4.5.5 Driver Training/Examination

All applicants for a taxicab driver's license in Seattle/King County must attend a 2-day training course provided through the City of Seattle and taught by industry members. In 1995, the City began offering a 8 hour class (now expanded to 16 hours) that covers defensive driving, personal safety, geography, city/county rules and regulations, customer service. Applicants must also complete a one-week training course provided through their respective associations. This course includes two days of on-the-road experience with a licensed driver from that association.

All drivers' license applicants must pass a written test on City/County rules and regulations and local geography plus an oral English language examination developed in cooperation with educators from the local community college.

4.5.6 Other Problems Cited

All those who were interviewed expressed overall satisfaction with the state of taxicab regulation and the level of service provided. All parties (regulators, taxicab industry members, and tourism industry and business community representatives) interviewed perceived the current regulations to be an improvement over open entry and fare deregulation. The only negative comment was that some members of the taxicab industry believed that enforcement of some provisions of the ordinance is too strict. For example, all drivers are required to take the English language test and pay the associated fee. Regulators stated that the number of customer complaints might rise in the short term, due to the requirement that all taxicabs post consumer information boards listing the Taxicab Hotline phone number for complaints. However, regulators expect the number of complaints to decrease in the long term, as associations become more involved in providing more responsive customer service.

5.0 Discussion: Cross-City Comparisons

5.1 Introduction

Three questions form the basis for this study:

1. What were the taxi regulatory changes that occurred in each city?
2. What were the motivations for these changes?
3. What have been the impacts of these changes?

Based on the findings in the previous three sections we can now discuss how the answers to these questions vary among these three cities. Later, in Section 6, we draw conclusions about taxi regulatory changes in these three cities.

5.2 What Taxi Regulatory Changes Occurred?

The regulatory changes made by Indianapolis and Cincinnati are similar to each other and to the regulatory changes enacted in 1979 in Seattle. However, these changes are nearly opposite to those recently made in Seattle.

Indianapolis adopted open entry, deleted its requirements for twenty-four-hour service, removed its requirement for radio dispatching, removed its prohibition on hailing taxis, increased the maximum age of taxicabs from five to six years, and established maximum fare rates. Cincinnati adopted open entry through an extremely lenient public convenience and necessity regulation in which any applicant can obtain a taxi license just by stating where the applicant intends to provide service. The Cincinnati system explicitly prohibits the city from considering any impacts on existing operators in granting new licenses. In addition, Cincinnati removed its cap on the number of licenses and eliminated its requirement for twenty-four-hour service while imposing a minimum ($3) fare on trips.

Seattle, on the other hand, continued to move away from its earlier open entry experiment and increased regulation by requiring all cabs to be affiliated with an association, by requiring a minimum of fifteen cabs per association, and by requiring twenty-four-hour service and radio dispatching. The requirement for radio dispatch can be met by use of a mobile radio telephone service until December 31, 1999. After that date, the requirement can only be met by two-way radio communication, to ensure use of central dispatch through each association.

Cincinnati and Indianapolis are clearly similar in their taxicab regulatory changes. Both effected open entry, although Cincinnati did so by retaining its public convenience and necessity clause but making it extremely easy to meet this standard. Both cities also reduced service requirements for taxicab operators by deleting their requirements for twenty-four-hour service, for dispatching, for a place of business, and for all-city service. Curiously, however, Cincinnati also moved toward increased regulation by establishing a minimum fare for taxi trips. Indianapolis relaxed its maximum vehicle age requirement from five to six years.

Seattle provides an interesting counterpoint as well as an indication of what can be expected to occur in Indianapolis and Cincinnati. Seattle in 1979 implemented deregulation not dissimilar to the changes recently enacted in Cincinnati and Indianapolis. The recent changes in Seattle's taxi regulations can be seen as a continuing move toward re-regulation in response to service and enforcement problems emanating from the earlier deregulation experience. Given the pattern that Price Waterhouse (1993), Teal (1987), and others have noted in deregulation experiences, one can expect that both Indianapolis and Cincinnati will experience service problems that will lead them to re-regulate their taxis.

5.3 What Were the Motivations for These Changes?

The motivations leading to the taxicab regulatory changes in these three cities differ considerably.

In Seattle the impetus for the 1996 changes stemmed directly from concern among the business and tourism communities that taxi services were of poor quality and were an important detrimental factor in the attractiveness of Seattle as a tourism and business destination. These groups believed that the taxi industry should either be more strongly controlled by the city or else more self-regulated, hence the requirements for affiliation with associations, for twenty-four-hour service, and for a point system for rule infractions.

While these industry concerns led directly to the City's increased taxi regulation, these concerns were but a step in the continuing process of remedying the impacts of the earlier experiment with deregulation in Seattle. As noted in Section 4, the city, county, and airport each took significant re-regulatory actions during the prior ten years, all designed to reverse the effects of open entry. In 1995, the City invited a peer review team of taxi regulators to review its taxi regulatory situation (Avants *et al.*, 1995). The peer review team pointed out the difficulty in enforcing any meaningful service standards with a small enforcement staff and an atomized taxi industry of 217 operators. It was the recommendations of this peer review team that were legislated into law by the City in 1996.

Cincinnati also reacted to problems within the taxi industry and dissatisfaction with the quality of taxi service. Unhappy with earlier confrontations with elements of the taxi industry over requests for new permits and tired of problems within the industry, the City reacted much as did Seattle did in 1979 when it, too, deregulated its taxi industry. Cincinnati might be described as reacting to problems rather than adopting a philosophy of government action.

This was not so in Indianapolis. Indianapolis adopted taxi deregulation as part of a philosophical approach to government action. Inspired by a mayor who advocated less government involvement in private enterprise, the City formed a commission to examine ways to reduce government regulations of all types. It elected to implement taxi deregulation despite its earlier negative experience with a limited form of deregulation in 1973 and 1974.

Indianapolis also differs from the other two cities in that its motivations expanded beyond transportation objectives. Sometime during the consideration of its new taxi regulations the City

adopted an objective of increasing the number of new job opportunities in the taxi industry, especially for minorities. Thus, in Indianapolis the deregulation initiative also became a social and jobs initiative, another fact that resembles the deregulation action of Seattle in 1979. It should be noted that the experience of Seattle and other deregulated cities has been that attempts to make the taxi industry a vehicle for social change have worked at cross purposes with passenger service quality objectives, e.g., higher fares, poor quality vehicles, short trip refusals, fewer centrally dispatched vehicles, etc. (Price Waterhouse, 1993).

5.4 What Have Been the Impacts of These Changes?

5.4.1 Level of Competition

Even prior to the regulatory changes in these three cities there was extensive competition within the three taxi industries. In Seattle there were more than 220 operators, of which 210 were independent owner-drivers. In Cincinnati there were more than twenty operators before open entry, and in Indianapolis 29 operators. This level of competition is just within the taxi industry in each city and does not include the competition between taxi operators and shuttles, vans, limousines, buses, and cars. Thus, regulatory changes were not needed in order to provide competition for taxi operators in these three cities.

In fact, in Seattle the intended impact of recent regulatory changes was to decrease governmental involvement in regulation of the taxicab industry while providing more control over operators and preserving competition. The 210 owner-drivers were required to join associations, and the result has been a much-reduced number of taxi providers: 10 associations.

In Indianapolis there has an increase in the number of operators. Currently, about 104 independent owner-drivers and two companies compete for passengers. This large number of owner-drivers is also similar to what occurred in Seattle after its 1979 open entry and what has been reported by Price Waterhouse to occur in other open entry cities.

In Cincinnati there has also been an increase in the number of operators: from about twenty to forty-four. Here, too, the pattern exists of more independent owner-drivers (15) after deregulation. However, the growth of independent owner-drivers in Cincinnati has been dampened by the fact that the airport is located in Kentucky and has not been deregulated. Thus, unlike other deregulated cities where independent owner-drivers have become overcrowded at airports, such is not possible at the Cincinnati airport.

5.4.2 Size of Industry

One of the expectations of advocates of open entry is that new taxi operators will enter the industry after open entry. This hope was particularly evident in Indianapolis, which established as one of its objectives that minorities would enter the industry as taxi operators.

In Indianapolis there has been a *decrease* in the total number of taxi permits after the most recent

open entry (392 to 372). A similar decreased occurred in 1973-74 (502 to 466). One possible reason for this decline is the emergence of new competitors to taxi service, such as airport shuttles and executive sedans. Another factor may be that--contrary to the assertions of open entry advocates--there was no pent-up demand for taxi permits before open entry. This explanation is bolstered by the fact that the Controller's Office had not issued all the available taxi permits prior to the 1994 deregulation. One older taxi company has failed and left the industry after open entry.

In Cincinnati there has been a substantial increase in the total number of permits after open entry (347 to 499). Currently there are an additional 117 that have been suspended by the City for non-use.

No recent evidence exists regarding whether people from outside the taxi industry have entered the industry after open entry. However, for the 1973-4 open entry in Indianapolis only one person from outside the industry applied for a taxi permit; the other new permit holders were former drivers or owners (Gelb, 1983b). Anecdotal evidence from interviews indicates that few new operators from outside the taxi industry have entered the industry since open entry in either Indianapolis or Cincinnati.

5.4.3 Industry Structure

The local taxicab industries have become more disaggregated in both Cincinnati and Indianapolis and more concentrated in Seattle. Indianapolis now has 179 independent owner-drivers, Cincinnati has 44, and Seattle none.

5.4.4 Service Requirements

Both Cincinnati and Indianapolis have relaxed their service requirements by deleting their requirements for twenty-four-hour service, places of business, and radio dispatching. Seattle implemented a maximum age (8 years), dispatching, and twenty-four-hour service requirements.

5.4.5 Enforcement

Enforcement is critical to the effectiveness of taxi regulations. On-street enforcement agents handle many enforcement matters, such as vehicle inspections, responding to complaints or emergencies, tracing lost articles in cabs, and checking equipment and insurance. The enforcement burden is greatly increased with more taxicabs, more taxi operators, and more independent owner-drivers without business locations.

These three cities are evidence of the reluctance of city governments to spend much money hiring taxi inspectors. Cincinnati has decreased the number of its taxi inspectors from 3 to 2 during the implementation of open entry. Indianapolis has maintained just one inspector, as has Seattle, although Seattle has recently added a half-time inspector. Thus, while the need for

enforcement has increased, the amount of enforcement personnel has decreased.

The low-level of on-street enforcement raises serious questions about the efficacy of the regulations. Simply put, the enforcement requirements increase with the number of operators and with operators who do not have fixed places of business. In such situations taxi inspectors have great difficulty in simply locating taxi operators, and routine enforcement matters, such as articles left in cabs, become very difficult to adjudicate.

Seattle, recognizing that enforcement is critical but that it was not able to hire enough inspectors to deal with its taxi service problems, opted to increase the level of self-enforcement in its taxi industry. Thus, it adopted the requirement that all taxis belong to associations and that associations exercise responsibility for their member taxis.

5.4.6 Fares

Table 5.1 shows the current fares in Cincinnati, Indianapolis, and Seattle. It should be noted that distance and wait time rates shown for Cincinnati and Indianapolis are *maximum* allowable rates, and that actual rates may vary by taxicab company.

Table 5.1: Fare Rates

Type of Charge	Cincinnati	Indianapolis	Seattle
Drop Charge	$2.00 (maximum)	"Pick-Up Charge" allowed but amount not specified (typically $1.25-$5.00).	$1.80
Distance Charge	$0.20 per 1/6 mile (maximum)	$0.40 per 1/5 mile (maximum)	$0.20 per 1/9 mile
Wait Time	$0.20 per minute (maximum)	$0.40 per minute (maximum)	$0.50 per minute
Minimum Fare	$3.00	-----	-----
Regional Center (downtown) Fare	-----	$5.00	-----
Other	Surcharge not to exceed 25 cents per mile for trips to other cities/areas.	Extra passenger: $0.65 maximum	Extras: $0.50 each passenger over 2.
Typical Charge for 5 mile trip (no wait time):	$8.00 (maximum)	$10.00 plus Pick-Up Charge.	$9.00

It should also be noted that Cincinnati is unique among these three cities in having a minimum fare ($3) per trip.

5.4.7 Age of Vehicles

Two of the three cities have a maximum age requirement for taxicabs:

Cincinnati:	No maximum age
Indianapolis/Marion County:	6 years
Seattle (City):	8 years (by August 31, 1999; 9 years through August 31, 1998; King County does not have a maximum age requirement)

It should be noted that in Seattle the local airport authority implemented a seven-year vehicle age limit in 1989. Not only did this requirement predate the adoption of a maximum vehicle age by the City of Seattle, but also it is more stringent than the City's regulation.

5.4.8 Customer Satisfaction

When gathering information for this report there was a great deal of discussion regarding customer satisfaction—what is the quality of service as perceived by those using, regulating, and providing taxicab transportation. In most instances throughout the country customer satisfaction is largely a subjective matter, supported only by the number of complaints received by regulators. The number of complaints is tracked for a period of several years, and trends of increasing or decreasing numbers of complaints are noted.

Instead of this passive approach King County instituted a system of tracking response times for taxicabs at selected points within the County. A schedule of optimum average response times was established, and actual response times are calculated annually from reviews of dispatch and trip sheet records maintained by taxicab companies. Actual response times are compared to optimum average times to determine the performance of the industry in meeting customer requests for service. Information on response times for the past ten years demonstrates consistent performance within the established standards.

In addition to tracking pickup times the City and County have each established a definitive process for handling both telephone and written complaints. Complaints from customers using City-licensed taxicabs and received on the Taxi Hotline (296-TAXI) are referred to the appropriate taxicab association for resolution. Audits include a review of association complaint logs to verify satisfactory resolution of complaints.

In addition to gathering information on service response time questionnaires distributed to King County taxicab patrons gather information on driver conduct/appearance and taxicab condition. Summary information from those questionnaires is presented in Table 5.2.

Table 5.2: Results of King County Surveys

Cab Condition	1990	1991	1992	1993	1994	1995	1996
Well Maintained	70%	48%	59%	72%	69%	58%	74%
Dirty, but good repair	22%	32%	29%	14%	26%	32%	18%
Dirty, poor condition	8%	20%	12%	7%	5%	10%	7%
Driver Conduct/ Appearance							
Excellent	71%	28%	42%	55%	35%	32%	55%
Acceptable	17%	59%	43%	39%	52%	47%	34%
Not Acceptable	2%	14%	15%	4%	13%	15%	9%
Average Wait Time (Minutes)	13	16	11	10	13	10	8
Wait Time Satisfactory	85%	69%	85%	81%	89%	84%	95%

Cincinnati does not require a taxicab company to implement or follow specific customer service procedures. The taxicab ordinance only stipulates procedures and penalties for taxicab drivers and owners who violate provisions of the ordinance. There is no formal city-wide passenger complaint process nor formal procedure for handling customer complaints.

Section 996-133 of the Indianapolis taxicab ordinance stipulates that anyone knowing of the misconduct of a licensee may present a complaint to any police officer of the City or to the controller. The controller is to investigate the complaint with the assistance of the Indianapolis Police Department or the Marion County Sheriff, if necessary. The controller then notifies the licensee in writing that charges have been filed against him/her and of the time of a hearing on those changes.

5.4.9 Driver Training and Examinations

Cincinnati requires that all applicants for a public vehicle license show evidence of at least six months' experience in operating a motor vehicle or successful completion of a course in the operation of a motor vehicle given by a approved school, or both. Applicants are required to complete successfully written tests of knowledge of both the taxicab ordinance and City geography. Applicants must correctly answer at least 15 of 20 written questions and correctly match the locations of at least 30 of 35 local businesses/attractions. While the ordinance states that the application is to set forth that the applicant is able to speak, read and write the English language, there is no such statement on the application form.

Applicants for a taxicab driver's license in Indianapolis must pass a written examination and a practical test. Areas in which applicants are questioned include:

1. The applicant's qualifications;
2. The applicant's knowledge of the provisions of the ordinance and other relevant statutes, ordinances, and regulations;
3. The applicant's knowledge of the geography of Marion County and the surrounding counties;

4. The applicant's ability to communicate in English with customers; and
5. The applicant's skills in operating a motor vehicle, which may include a driving test.

A driving test has been developed and implemented to ensure that applicants can demonstrate practical use of their knowledge. According to the Taxicab Inspector, use of this test has reduced the number of complaints about drivers' lack of geographic knowledge and/or use of a longer route than necessary to reach a destination.

King County has tested for-hire drivers as a prerequisite for licensure since 1985. The examination is comprised of two parts—ordinance knowledge and geography knowledge. The examination tests an applicant's knowledge of regulations governing fare determination, driver-passenger relations, conduct, ability to understand oral and written directions in the English language, vehicle safety, and the geography of King County and the surrounding area. Of those who have taken the examination from 1985 through 1996, 4,901 passed, and 1,479 failed. Applicants for a County-only license may take the test as often as the test is given during their 60-day pending period. Applicants for a City of Seattle license may take the test two times. If they fail both attempts, they must wait 60 days before they can reapply and take the test again. Applicants do not receive a temporary license until they have passed the written examination.

5.4.10 Fees

Each of the three cities charges fees for license application and renewal for both taxicab and driver licenses. Each city also charges one or more other fees, linked to the regulatory structure in place (Table 5.3).

Table 5.3: Summary of Fees

Fee	Cincinnati	Indianapolis	Seattle
Taxicab Association/ Dispatching Office	$16 annual for dispatching office	None	$750 annual for Taxicab Association
Late Fee	None	None	$75
Taxicab Change of Assoc. Affiliation	Not Applicable	Not Applicable	$50
Taxicab License	$161 annual, $80.50 on or after July 1, $10 initial application fee.	$100 annual	$240 annual City $140 annual County
Late fee (renewal)	None	None	$24 City/$14 Co.
Change of Equipment	None	None	$50 City/$25 Co.
Change of Owner	$10 Transfer	None	City: $240 Sept-Feb $120 Mar-Aug $0 July 16-Aug 31
Vehicle Inspection	City inspection fees included in License Fee	Not Applicable	$30/hour, 1 hour minimum, for re-test of taximeter
Vehicle Re-Inspection	None	None	$20 Class A violations, $50 Class B violations
Inspection Scheduling	None	None	$20
Meter Registration	None	None	$5
Suspension Reinstatement	None	None	$50
Driver License	$14 initial annual, $5 annual renewal	$18 bi-annual	$55 annual
Add/Change Affiliation	Not Applicable	Not Applicable	$20 (maximum of 3 associations)
Driver License Late Fee	None	None	$10
ID Photo	None	None	$2
Replacement License	$1 1st replacement of ID Card, $2 subsequently.	None	$5
Driver Training/ Examination	None	None	$45 training for new applicants; $30 Oral English Proficiency

A review of comparative costs shows that Seattle/King County is the most expensive jurisdiction of these three cities in which to license a taxicab. However, there appears to be a positive correlation between the amount of regulatory activity and the fees paid. Though the costs of regulatory fees are higher in Seattle/King County than in Cincinnati or Indianapolis, satisfaction with the regulatory structure and with taxicab service is also greater in Seattle/King County than in the other cities.

6.0 Conclusions

This study focused on three aspects of the taxicab regulatory changes in Indianapolis, Cincinnati, and Seattle:

a. What regulatory changes were implemented;
b. Why they were implemented; and
c. What the impacts have thus far been of these regulatory changes.

Based on the findings and discussion in previous sections it is now possible to draw conclusions about the regulatory changes in these three cities.

1. The regulatory changes in Cincinnati and Indianapolis are similar to those of Seattle in 1979 but are opposite those of Seattle in 1996.

Both Cincinnati and Indianapolis enacted local ordinances to effect open entry into their taxi industries. These actions are directly opposite of the 1996 actions of Seattle in requiring all taxicabs to affiliate with associations and for associations to be responsible for the actions of their taxicabs. However, the actions of Cincinnati and Indianapolis are very similar to those of Seattle in 1979 when it, too, deregulated by opening entry and relaxing fare regulations. This similarity suggests that the re-regulation experience of Seattle may be indicative of what may occur in Cincinnati and Indianapolis in the future.

2. There was a competitive taxi market in each city prior to deregulation.

A common perception of taxicab service is that one or a few taxi companies control the market and open entry is necessary to bring competition to the industry. However, in all three of these cities a high level of competition existed prior to enacting of open entry.

3. These three cities appear to follow a common pattern described by the literature.

Price Waterhouse (1993), Teal (1987), Gelb (1983a,b), Dempsey (1996), and Frankena and Pautler (1984) all point out a common pattern that follows open entry in local taxi markets. Usually the fares increase and independent owner-drivers who service taxi queues at airports, hotels, and train stations obtain additional permits. A bifurcation of the industry results with companies focusing on neighborhood trips and independents serving the taxi stands. The problems resulting from too many cabs at these stands then cause the airports and perhaps hotels to institute their own controls over the waiting cabs. Subsequently, the municipal governments respond by enacting entry controls. The result is that regulation is re-imposed, which has occurred in all but four of the twenty-one open entry cities examined by Price Waterhouse.

Impacts from the regulatory changes in these three cities generally follow this pattern. An

opportunity has been created for fares to rise in Indianapolis in the period following deregulation. The cost for a typical 5-mile trip with the fare rates set prior to the implementation of Proposal 72 was $8.45; that trip may now cost up to $10.00 plus a "Pick-Up Charge" at the maximum rate now in effect. The price of a trip now varies among different operators due to the regulation by maximum rate; the typical price for a 5-mile trip calculated according to rates in use by the two larger companies in July 1997 was $9.00 and $11.25. The lack of a uniform price can be confusing to visitors accustomed to a set rate for all taxicabs. The price for a 5-mile trip is now a maximum of $8.00 in Cincinnati and a set rate of $9.00 in Seattle.

The level of service varies among the three cities. In Cincinnati, the number of taxicab companies doubled from 1993 to 1994, during the initial period of relaxed entry. From 1994 to 1997, there has been only a ten percent growth in the number of companies. Small independent owner-operators are reported to primarily serve downtown hotels and "personals." There has been difficulty in getting taxicabs to respond to service requests from low-income areas both before and after the regulatory changes according to residents. Residents and a regulator cited the difficulty of acquiring service during evening hours.

In Indianapolis, open entry has not resulted in an increase in the number of taxicabs; however, many independent owner-operators congregate at already well-served locations such as the airport and at downtown hotels. In both Indianapolis and Cincinnati, there is a disparity in the level of service provided by larger companies using radio dispatch and independent owner-operators using cellular telephones. The larger companies offer 24-hour, 7-day service throughout the metropolitan area, while the smaller taxicab companies tend to offer service during fewer hours and to smaller service areas.

The Seattle requirement that all taxicab owners belong to a taxicab association has placed additional responsibility for providing satisfactory customer service within the taxicab industry. Representatives from the hospitality and tourism industry reported a high level of satisfaction with operations under the current regulatory structure. The extent to which customer satisfaction has increased as a result of the driver training and testing programs is unknown. There were no perceptions from individuals who were interviewed in Seattle that any particular geographic area lacked an acceptable level of service. The supply of taxicabs at the airport is limited to those provided by one contractor.

4. Indianapolis experienced only a brief increase in taxi permits after its most recent open entry.

The number of active taxicab licenses in Indianapolis increased from 392 prior to opening entry to 460 in 1996. However, the number of taxicab licenses then decreased. In the 1973-4 open entry there was not even an initial increase in permits, and the number of permits fell from 502 to 466. For the most recent open entry the number of permits--after initially increasing--fell from 392 in 1993 to 372 in 1997.

The Indianapolis experience with decreases in the number of taxicab licenses illustrates an often-overlooked fact about taxi markets: the existence of entry controls does not necessarily mean that

there is a pent-up demand for taxi permits. Taxi operators face competition from a variety of other transportation providers as well as private autos. The removal of the cap on the number of limousine licenses (75) in Indianapolis as part of the revision of the vehicles-for-hire ordinance resulted in an increase in the number of limousine licenses. Fourteen limousine companies are currently in operation with 89 licensed limousines. The 1994 ordinance revisions also allowed jitneys to operate in Indianapolis-Marion County. No new jitneys have been licensed in the city.

5. The impacts of open entry are dampened in Cincinnati because airport is not deregulated.

One of the common occurrences after open entry has been the growth of the numbers of independent owner-drivers serving taxi stands, especially airports. The reason for this influx is that owner-drivers are able to wait at airports and eventually get trips without having to invest in radio dispatching or advertising. In Cincinnati, however, the airport is located in Kentucky and hence was not affected by Cincinnati's open entry ordinance. Thus, the city has seen only a modest number of independent owner-drivers (15). Since most of the problems with open entry have first been manifested at airports and other major traffic generators, one can expect that Cincinnati's problems with open entry will be dampened as long as the airport is not opened to all Cincinnati cabs.

6. Seattle demonstrates the long time required to remedy the effects of open entry.

Nearly two decades have passed since the beginning of Seattle's experiment with open entry. Although the airport, city, and county all took actions during the 1980s to re-regulate, as recently as 1996 the city was still coping with effects of open entry in terms of service complaints and too many operators to enforce effectively. Prior to the most recent regulatory actions of 1996, the city was still trying to regulate 217 operators, of which 200 were one-cab companies and most without places of business. Thus, the effects of open entry--especially the growth of independent owner-operators--lingered far beyond the open entry time period, making the re-imposition of quality controls very difficult.

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