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DO ECONOMISTS REACH A CONCLUSION?

Do Economists Reach a Conclusion on Taxi Deregulation?

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[ABSTRACT, KEYWORDS, JEL CODES](#)

TAXIS ARE AN IMPORTANT ELEMENT OF MOBILITY IN THE transportation network of any city. Nationwide, taxis carry at least 40 percent more passengers than all other mass transit combined (Wohl 1982, 329; Rosenbloom 1985). Some transportation analysts consider taxis in metro areas to be a largely untapped transit resource (Trudel 1999 and Arnott 1996). Because taxis are more expensive than other transit services, they must offer something that other transit modes do not. In particular, taxi services are important to certain segments of the population. Seniors, housewives, the disabled, and the poor each account for a much higher share of taxi trips than their share of the population (Rosenbloom 1985; Weiner 1982).

Taxi markets are typically heavily regulated. Most cities control entry into the market and set prices, as well as set requirements for drivers, vehicles, finances, and operations (Shaw et al 1983, 1-7).

The research on taxi market regulation has been authored by economists, planners, engineers, geographers, and other transportation experts. Our task here is to focus on the judgments of economists who have written substantively on taxi regulation (publishing at least a few pages devoted to the subject). We include judgments expressed in published work if at least one of the authors is an “economist.” The broad standard for

* Reason Foundation.

being an economist is that the individual has a post-graduate degree in economics or has a position with the title “economist,” including a post in an academic economics department (we include our determinations in an Excel sheet linked from Appendix 1). We try to assess whether economists who exercise vital judgment on taxi regulation reach a conclusion.

Our investigation cleaves away all the taxi regulation research that is not authored by economists. This may seem unfair, but it is a necessary part of the method. Readers should be aware that the substantial literature by non-economists does tend to be more interventionist than the economic literature (e.g. Yang et. al. 2002 and 2005, Teal and Berglund 1987, Dempsey 1996, and Kang 1998), although some of it finds deregulation to be beneficial (e.g. Morrison 1997, Garling et.al. 1995) or neutral (e.g. Rosenbloom 1985).¹

KEY FACTORS IN THE ANALYSIS OF TAXI MARKETS

The conventional wisdom is that the taxi market is unique and requires restrictions that few other markets do. But many markets have unique problems, and in few of them are draconian entry and price regulations considered necessary. Indeed, only utilities face similarly entry and price regulation, and taxis are not a natural monopoly. Frankena and Pautler’s (1986, 139-40) review of the literature on economies of scale in taxi markets found no economies of scale in cruising or taxi stand markets, and some scale economies in radio-dispatch service. But Pagano and McKnight (1983, 299) argue that the literature on scale economies in radio-dispatch service posits scale economies but fails to show them empirically and that since most existing taxi companies offer all three kinds of service, economies of scale as a whole must be examined, and they find economies of scale only in small markets.

Evidence for systematic market failure in taxi markets is thin. Economists such as Cairns and Liston-Heyes (1996) create simplified models of taxi markets and find that search costs lead to market failures. Yet not all cities regulate taxi markets— Shaw et al (1983, 30, 48) reported that 12 percent have open entry and 23 percent do not regulate fares.

¹ For a very small number of works (e.g., Gelb 1982), we were unable to determine whether it met any of the “economist” criteria, and omit them.

Indeed, many cities have successfully deregulated taxi markets and not experienced substantial market failures (Frankena and Pautler 1984).

But rent seeking plays a large role in taxi market regulation. There is largely one source of pressure for most regulatory strictures—the incumbent taxi firms (Frankena and Pautler 1986, 147). Entry restrictions, combined with the independent-contractor system for drivers, means that taxi license owners make good profits off each license while leaving the drivers to bear most of the financial and customer-service risk and liabilities. In the early 1980s total monopoly rents for taxi license holders in New York City were \$590 million and in Boston \$48.8 million in 1980 dollars (McCarthy and McCarthy 2000, 369).

Eckert (1970) maps the evolution of taxi-monopoly franchises in Los Angeles arising from the self-interest of regulators and franchise holders. New York is the quintessential example of rent seeking in taxi market regulation. There are almost 1400 *fewer* taxicab permits (medallions) in New York City than there were in 1937 (Markowitz 2004). Strong-arm power plays and elaborate schemes to allocate benefits from reduced competition have shaped the history of the city's taxi permits and continue to shape the debate today (Markowitz 2004). Rent seeking interests are so powerful that Dixit and Nalebuff (1993, 363-364) advocate renting taxi licenses so the city can capture the monopoly rents.

Others (such as Eckert 1970, Beesley and Glaister 1983, and Frankena and Pautler 1986) advocate removing entry restrictions and eliminating monopoly rents. Beesley and Glaister (1983, 611) estimated that entry and price restrictions lead to nearly \$10 million per year in welfare losses in the city of London alone. Embedded in those welfare measures are the poor without cars, the elderly, the disabled, and others who now and then need affordable door-to-door transportation services and would benefit from a more competitive market. They are on the wrong side of the political calculus, with their dispersed costs overlooked in a regulatory process dominated by the concentrated beneficiaries (Taylor 1989).

Regulation of taxi markets became widespread during the Depression era, but in the 1960s economists and transportation researchers began questioning the assumptions that underlie regulating entry and prices in taxi markets. Soon after, many cities began to experiment with loosening and even eliminating many of the regulations (Frankena and Pautler 1984). This spurred further interest in economic research into taxi market policy.

Implementing regulatory changes focused on the questions: Can the special problems of the taxi market only be solved by restricting entry and controlling prices? If not, what are the alternative mechanisms to prevent

problems in the market? Often discussions revolved around how to modify regulations so as to ensure customer safety and the opportunity for satisfaction while letting the competitive market decide other factors. Meanwhile the new economic literature on taxi markets examined the theory and practice of deregulation and its outcomes.

Frankena and Pautler (1986) summarize the theoretical and empirical studies of less regulated taxi markets that led advocates of deregulations to assert benefits from greater competition. As summarized by Frankena and Pautler, the asserted benefits include:

- Lower fares, as more service providers compete in the market.
- Lower operating costs, due to competitive incentives.
- Improved service quality, as competition encourages taxi drivers to provide friendly reliable service and clean vehicles, and to avoid taking advantage of passenger ignorance. With competition reputation becomes more important.
- Innovations such as shared-ride markets and special services for the disabled, creating market niches where none had existed.
- Increasing demand for taxi services, as prices fall and quality improves.

It seems apparent that removing barriers to entry would increase the number of taxis operating and increase service levels. This means that more taxis are available in any given hour of the day, which makes the service more attractive to riders. Frankena and Pautler (1986, 150-154) found up to 30 percent increases in service levels in cities that opened up entry. But others, (Paratransit Services 1983 and Rosenblum 1985 for example) found that in some cities service levels changed little after deregulation. Teal and Berglund's seminal 1987 paper concluded that "taxicab deregulation cannot be demonstrated to have produced, in most cases, the benefits its proponents expected" (p. 54).

Increasing service levels is an important outcome. Greater service levels overall usually means greater service to the poorer sections of the city. The more competitive the taxi market, the better these areas tend to be served. Traditionally, poor areas of town receive the lowest levels of taxi service. At the same time, in poor areas general levels of mobility are often lower, and demand for taxi services higher.

Also, increased service levels have more impact at peak hours, at dense trip-generating sites, and during bad weather. A lot of people will

only consider using a taxi if they are in a hurry or are traveling to or from the airport, special events, and shopping destinations. If service levels for these locations are too low, taxis will no longer be an attractive option, and passengers look elsewhere, or drive themselves.

Outcomes from deregulation are equally mixed in other dimensions. Frankena and Pautler (1986), Paratransit Services (1983), and Rosenbloom (1985) examine results from dozens of cities and find improvements in some cities and no improvement in others in terms of fares, operating costs, service variety, and total trips. Some detailed case studies of cities that deregulated, such as Beesley (1979) and Moore and Rose (1998) found substantial positive outcomes from deregulation, while others, such as Avants et. al. (1996) and Fingleton et. al. (1998) find few positive outcomes.

One might conclude from these conflicting results that sometimes deregulation works, and sometimes it doesn't. The devil is in the details of implementing deregulation and in what is measured to define success.

CHALLENGES IN EVALUATING THE OUTCOMES OF DEREGULATION

There are three main sources of disagreement in the literature.

Trips originating at airports

Taxi markets suffer from information problems. Customers at the curb are uncertain about the terms offered by any particular cab, and about alternative offers. With taxicabs in a queue at the airport and the stand coordinator instructing passengers to take the lead cab, there is no role for price or quality competition. Unrestricted fares in this case could mean severe price gouging and "rip-offs." When taxis are free to roam at the airport, and cabbies enter the terminal to solicit passengers, the visitors get a general sense of chaos. Some argue that without fare restrictions there are high transaction costs (Gallick and Sisk 1987, 127).

At the same time, regulators suffer information problems. As Beesley and Glaister (1983, 612) put it, "the chain of required observations is long," and "in light of the complex reasoning involved, a natural question arises about the feasibility of improving welfare by regulatory action." Yang et al

(2000) suggests that a very complex simultaneous equation system using a very large and rich data set, both of which likely exceed the grasp of most city regulatory agencies, only starts to predict some parameters of taxi market performance.

Even researchers who are very sympathetic to taxi deregulation maintain that at the airport fare deregulation might create severe problems (Rosenbloom 1985, 15, 18; Styring 1994, 35; La Croix et al 1985; Kirby's comments following LaGasse 1986). Some cities have responded with price controls for trips originating at the airport and manage congestion by limiting the number of taxis allowed to queue at airport and other congested taxi stands, and by establishing proprietary curb zones where only one taxi company may stop (Cervero 1996, 21). At various airports there have emerged system of exclusive contracts, special permits, and open entry, each of which, as La Croix et al (1992, 152) put it, "has its own advantages and disadvantages."

Airport authorities have some incentive to find rules that reduce conflicts at the curb over waiting passengers, and that assist passengers in finding the cab company they desire. Such site-based rules to deal with local information problems do not have the widespread repercussions that citywide regulations have. There are two general site-based solutions for the airport taxi market that take advantage of contracting by the airport authority rather than city regulatory authority: either the airport should manage service and fare differentiation with multiple taxi stands and a designated coordinator to aid passengers, or the airport should arrange uniform rates for all trips originating at the airport.

Information about fares in all taxi markets might be improved by requiring a uniform measure, such as the following: if the taxi establishes rates by distance, it must set its flag drop charge for the first 1/5 mile and additional travel per 1/3 mile (Doxsey 1986, 8). Imposing such units for rates would facilitate fare comparisons by consumers. Taxis could set their own flag drop charge high enough to make short trips worthwhile. Taxis ought to be permitted to utilize other rate structures—by zones, by journey duration, by time of day, etc.—but be required to use a uniform measure of distance *if* they elect to charge by distance.

The airport-origination issue is a tricky one for our review. First, there is the issue of whether, in the abstract, restrictions on such services should be deemed "intervention" or simply contract within the nexus of property. Just as a hotel owns its property and may lay down contractual rules that restrict the taxi operations at its drive-ups, an airport authority may be seen as the owner of the airport and may impose similar rules. In

this view, unauthorized taxi operations are akin to trespass. To suggest that any problems arising from lawlessness at airports are failings of the free-market is not really fair, as the market and laissez-faire presuppose a law of property and contract relations. This is a matter of interpretation, and regardless of how we might come down on the matter, the second issue is whether the economists surveyed agree with this property-interpretation. Only La Croix et al (1992) among the economic literature focuses on airport issues and while they consider both property rights and regulatory mechanisms as a means of resolving the problems. The rest of the literature is not clear on this issue, so we have no easy way to resolve it.

Deregulation has been only partial

Little entrepreneurial flair has been observed in cities that have deregulated (Rosenbloom 1985, 191). However, deregulation has been only partial. Although many cities, including such widely studied cities such as Atlanta, San Diego, Seattle, and Indianapolis permitted free entry, they did not fully deregulate fares and services, nor allow market mechanisms to overcome information problems (Luciani 1997, 32-33). This limited the scope of competition between incumbents and new entrants and prevented taxis from offering new services or fares to win customers. Shared-ride services generally remained forbidden. Yet shared-ride might be a valuable service at high-volume origins like airports where an agent or stand operator helps passengers arrange shared rides. Shared-ride service is unlikely to develop in the absence of curbside coordinators or in dispersed origins and especially edge cities where virtually everyone drives (Teal 1986).

Service provision in less dense markets such as suburbs and rural areas did not always improve with partial deregulation. In some deregulated cities taxis still could not price the short haul specially, and continue to refuse such trips (Frankena and Pautler 1986, 155; Teal 1986). And while the fixed costs of entering the taxi market are low, the variable costs of full-service, especially dispatch, can limit competition and have led some to suggest subsidizing taxi travel (Arnott 1996) or separating dispatch from taxi production and running dispatch as an independent regulated monopoly and leaving competition on the streets among cabs (Hackner and Nyberg 1995).

Some effects of deregulation have gone unnoticed

There are some effects of deregulation that have gone unnoticed, effects associated with the changing status of cabs that were formerly illegal. Some argue that municipalities saved money by reducing the extent of regulation that they had to enforce (Frankena and Pautler 1986, 155), others say that almost all cities had to spend more than before, to track down independent and formerly illegal cabs and enforce safety codes (Rosenbloom 1985).

The deregulation literature has almost completely ignored the impact of erstwhile illegals (Suzuki 1985 and 1995). The existence of black market cabs in most regulated markets meant that total trips by taxi were underestimated, and real average prices in the market overstated (Schkolnik 1992 and Chavez 1992). Prior to deregulation, problems with illegals, which, like any black market service, probably had given ample cause for complaint, were not heard. With deregulation, large numbers of cabs suddenly enter the legitimate market, so we should expect the absolute number of complaints to increase. One would expect it to take some time for these taxis to bring themselves into compliance with safety and insurance codes.

Classifying Economists' Research by Style and Judgment

There is a substantial economic literature on taxi policy, much of which is model-building. A great deal focuses on refining taxi-market models and developing variations on regulatory schemes (for example, Yang et al 2000; Rometsch and Wolfstetter 1993; Arnott 1996; La Croix et al 1992; Beesley 1979; Schaller 1999).

We were able to identify 28 articles on taxi deregulation by economists.² Theoretical approaches dominate, with 8 articles taking model-building theoretical approaches, 10 mostly plain-talk theoretical

² It is perhaps worth clarifying that for the purposes of Table 1 we are looking for judgments on substantial forms of decontrol, worth speaking of as "deregulation." On this basis, we have omitted papers dealing with only one minor dimension of liberalization, for example, Flores-Guri (2005), which considers liberalizing merely the permissible pick-up domain of cruising taxis (and comes across as favoring such a liberalization). There are probably a few other papers of this type that we have passed over. Flores-Guri is included in the next section's list of quotations on taxi liberalization.

papers, and then 2 taking an empirical approach and 8 a case-study approach. Empirical studies evaluate data and use statistical significance to assess outcomes. Case-study articles examine deregulation descriptively in a city or set of cities.

As shown in Table 1, most economists who examine taxi deregulation conclude that it is on net beneficial. Of the 28 articles, nineteen concluded that deregulation is beneficial (on net), two conclude that the results are mixed, seven conclude deregulation is net harmful. Some of the articles do not state their conclusions so matter-of-factly or avoid stating what their results mean.³ We have taken the liberty of inferring policy conclusions from the thrust of their analysis.

Note that the literature concluding that taxi deregulation is net beneficial is the richer literature, with articles from each approach to the issue. The literature concluding that taxi deregulation is net harmful is mostly model-building. And, without delving too much into criticism, it is clear that those articles derive their results from strong assumptions about information and transaction costs. The literature finding net benefits often uses a richer set of assumptions that include mechanisms for overcoming information and transaction cost challenges (Beesley and Glaister 1983; Gaunt 1996; Frankena and Pautler 1986; Williams 1980; Moore and Rose 1998).

³ And for that reason, some of the authors listed in the table (namely, De Vany, Rouwendal et al, Styring, Fingleton et al, Doxsey, Shreiber, Gentzoglani, LaGasse, and Toner) are not quoted in the next section of quoted judgments. Also, we have refrained from quoting Moore and Rose 1998.

**Table 1: Classifying the Economic Literature on
Taxi Market Deregulation**

28 works	Mostly Model Building Theoretical Studies	Mostly Plain Talk Theoretical Studies	Mostly Empirical Studies	Case Studies
19 works Deregulation is good	4 Beesley and Glaister De Vany Hackner and Nyberg Rouwendaal et al	7 Boroski and Mildner Eckert Frankena and Pautler Kitch et al Kenny and McNutt Lephardt and Bast Williams	1 Pagano and McKnight	7 Barrett Beesley Fingleton et al Gaunt Moore and Rose Staley Styring
2 works Mixed results	0	1 La Croix et al	0	1 Doxsey
7 works Deregulation is bad	4 Cairns and Liston-Heyes Flath Gentzoglani Schreiber	2 Gallick and Sisk LaGasse	1 Toner	0

ECONOMISTS' JUDGMENTS ON TAXI LIBERALIZATION

In the literature you do not often find economists expressing a firm judgment on taxi liberalization. But sometimes you do find judgments, either firm or reserved, and we have compiled as many such expressions as we could find.⁴ Positive judgments dominate, perhaps because economists with positive judgments are more willing to express them.

A. Positive judgments of taxi liberalization (ordered chronologically)

The following judgments lean toward liberalization of restrictions on taxi services. We do not mean to suggest that they all support complete liberalization.

A regulatory policy more hostile to the interests of taxi consumers [than territorial monopoly franchises] could scarcely be imagined. Taxi monopolies have doubtless raised prices and reduced output relative to those which would have existed in a competitively organized and unregulated market. (Eckert 1970, 449-50)

Students of economics and urban transportation frequently cite the limitations of 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. The authors of this article share the academic view. . . . Checker, Yellow and the independents share a common interest in preserving their legal protection against new competition. To further this interest they have been able to generate the myth that the industry, under competition, has been proven irresponsible

⁴ Several of the quotations are from works that are not included in Table 1 (namely, works by Gomez-Ibanez and Meyer, Gordon and Richardson, Winston and Shirley, Flores-Guri, and Fingleton et al). Such quotations are usually passing remarks drawn by transportation economists but from works that do not significantly analyze taxi market liberalization.

and unstable. Their version of the history of the taxicab industry ignores more than fifty years of apparently free entry and free rate regulation prior to 1929. It hints darkly of violence, but fails to note that the two major violent events apparently resulted first from the efforts of an existing company to obtain a de facto monopoly, and second from the grievances of drivers unhappy with their position under the regime of limited competition. This fabricated history has given the city's regulatory policies an air of propriety they would not otherwise have. (Kitch, Isaacson, and Kasper 1971, 285, 343)

We have explored several hypotheses about reasons for the trend in total supply in the London taxi trade [there was substantial growth], reaching the broad conclusions that much of the apparent ability to keep real costs down in the face of rising real input prices has to do with adjustment in labour supply, itself a function of free entry, [and] competition with the hire car trade. (Beesley 1979, 130)

We have provided a more intuitively satisfying description of the operation of modern taxicab markets, and demonstrated that there is no reason to believe that an unregulated taxicab industry will not be efficient. We conclude that there is little reason to regulate either price or entry. (Williams 1980, 111)

[G]ranting of licenses on a municipality basis, which constrains the size of the firms, may not lead to a service being provided by a firm of the most efficient size. A licensing scheme involving several municipalities could result in more cost-efficient taxicab service. Secondly, in areas where the number of trips exceeds 100,000 per year, more than one firm can provide service efficiently. Thus, deregulation of larger markets probably would not result in monopoly providers. (Pagano and McKnight 1983, 309-310)

In light of the complex reasoning involved, a natural question arises about the feasibility of improving welfare by regulatory action. Regulators are dependent on restricted information. (Beesley and Glaister 1983, 612)

Although we believe the city officials' goals should ultimately be to refrain from future market intervention and allow the supply and price of taxi services to be determined by decisions made by owners, drivers and the riding public, a gradual policy of disengagement would minimize the disruptive effects of such a return to the free market. (Lephardt and Bast 1985, 14)

Experience with open entry in the radio-dispatch market has generally been favorable. This is important because typically about 75 percent of taxi trips are produced by radio-dispatched cabs. In marked contrast . . . there have been many problems at airport cab stands following regulatory reform. . . . These problems do not provide an argument in favor of entry restrictions, however. Rather, they suggest that there would be significant efficiency gains from either increasing fare competition at airports by altering the queue system or imposing or lowering fare ceilings on airport taxi service. (Frankena and Pautler 1986, 157-58)

The experiences of Colombo and Santiago suggest that if competition can be maintained, fare deregulation probably will not lead to large increases in fares or monopoly profits. In Colombo the CTB's low fares were clearly an important constraint on the pricing behavior of private operators, but no published reports of collusive or anticompetitive behavior have emerged. Santiago's experiences of stable fares in the competitive shared-ride taxis and large fare increases among the collusive taxibus and microbus route associations offer direct evidence of the importance of competition. (Gomez-Ibanez and Meyer 1993, 30)

Increased vehicle occupancy in door-to-door vehicles is therefore the key to resolving the regions's traffic congestion problem. HOV lanes and transitways for buses, vanpools and carpools would reduce these vehicles' trip times—a competitive advantage. Deregulation of shuttle vans and taxis would permit these kinds of vehicles to offer shared-ride door-to-door services more competitive with individual automobiles. (Gordon and Richardson 1994)

The sunk costs of an entrant cab is likely to be small . . . [and] the fixed costs are likely to be moderate. . . . All this together makes for a strong case for deregulation. (Hackner and Nyberg 1995, 204)

[After deregulation of the taxi industry in New Zealand] large cities experienced significant new entry and real fare reductions, [but] only a modest increase in entry and minor reductions in real fares in medium sized cities, and minor reductions in industry size and minor increases in real fares in small towns. . . . Deregulation results, then, in significant adjustments to output and pricing in the large cities but only minor changes in the small centres. (Gaunt 1996)

The authors would prefer a swift move to complete entry liberalisation, but in the absence of such a move, the revocation of the right to transfer the taxi plate is a necessary and inevitable step for any sustainable long term market configuration with entry liberalisation. A more efficient entry regime would, in our opinion, abate the principal-agent problem and allow urban sharecroppers to reap the benefits of ownership. It would also create an avenue for people of limited means to enjoy the benefits of an enterprise culture and the free market, while increasing consumer surplus for taxi users. (Kenny and McNutt 1998)

This study does not call for more or "better" regulations. Instead, this paper argues that an improved taxicab market can arise by removing regulation and promoting

competition. Elements of this proposal have been tested in places such as Indianapolis, Washington D.C., Denver, Phoenix, and other cities, where deregulation has revived local taxicab markets. (Boroski and Mildner 1998)

On average our data suggest that, controlling for operating environments, fares are slightly higher and taxi availability (number of taxis) is slightly lower in those cities that have deregulated fares and market entry. . . . Taxi deregulation is likely to be most beneficial if it is part of a broader policy to stimulate competition in urban transportation. . . . The increased intermodal competition and coordination in a privatized and deregulated urban transportation system should lower taxi fares, improve services quality, and enable taxi operations to provide some competitive discipline for transit. (Winston and Shirley 1998, 104-5).

The fact that almost all cities that deregulate their local taxicab market experience an increase in the number of taxis in operation suggests that substantial unmet demand exists for these services. More importantly, this unmet demand can expand economic opportunities for central city residents. . . . Even though wages for existing drivers might fall, the benefits of putting more people to work as taxicab entrepreneurs, increasing the availability of taxicabs, and increasing the variety of taxicab services may more than outweigh the income losses experienced by existing companies. . . . More importantly, the mere fact new taxicab operators enter the market, providing new levels of service, suggests that economic opportunities are better driving taxis than other jobs. (Staley 1999, 10)

The Irish taxi deregulation resulted [in] a dramatic increase in new market entry unprecedented by international standards. Large reductions in passenger waiting times have made deregulation popular among the public. There has not been a reduction in either driver or vehicle standards. The Irish experience is that there should be full and immediate deregulation rather than mere liberalisation of taxi markets. (Barrett 2003, 39)

Radical changes in the institutional organization of taxicab markets, such as outright elimination of the medallion system, do not seem to be politically feasible in most instances. Local regulators are often reluctant to confront the special interests and monopoly rents that entry regulations have created. Smaller regulatory changes, such as the elimination of exclusive cruising areas in adjacent cities with similar socio-economic characteristics, can improve market efficiency and increase benefits to consumers without being opposed by the taxicab industry. (Flores-Guri 2005, 165)

B. Mixed judgments of taxi liberalization

Experience at airports using the open taxi system indicates that competition has brought neither lower prices nor better taxi service. Indeed, airport administrators at both the Los Angeles and the Atlanta Airports, who opened their airports due to political pressure, quickly found that the quality of taxi service deteriorated at both airports because it was difficult to "fix blame for poor quality service." Since 1989, both Seattle and Detroit have switched back to exclusive airport taxi service indicating that airport administrators and lawmakers are now placing greater value on service quality than the provision of equal airport access to all taxicab operators. . . . [However] [o]ur comparative analysis finds that criticism of exclusive contracts and open systems is often misplaced, as it fails to acknowledge the necessity to achieve political equilibrium and the differential importance assigned to particular goals by airport administrators. (La Croix et al. 1992)

There are not enough taxis in Dublin and this has arisen because the regulatory system does not work. We propose that entry to the market be de-regulated and have suggested that this be done by issuing a new license to existing holders as a first stage in the full de-regulation of entry. This new entry should be accompanied by measures

to improve both the quality standards and the enforcement of those standards. . . . On the other hand, we are not convinced by either the arguments or the evidence in favour of de-regulation of price and hence we recommend that fare controls continue. Because the existing system of regulation has not worked, a new system of regulation is needed. This should both regulate and manage the taxi market to the benefit of the customers of taxis and hence to society. (Fingleton, Evans, and Hogan 1998)

C. Negative judgments of taxi liberalization

We have argued that average price regulation can in some circumstances significantly reduce exchange costs. (Gallick and Sisk 1987, 127)

Price regulation is necessary to produce equilibrium in a simple model of the taxi industry. . . . This paper should be interpreted as implying that there are good reasons for regulation of this industry. (Cairns and Liston-Heyes 1996, 12)

The rationale for taxi regulation now becomes apparent. First, even if regulatory capture entails collusive fare setting, its net distortions are made less than they otherwise would be by the fact that under *laissez faire* too pricing entails a degree of local monopoly. Second, even under regulatory capture, the number of vacant cabs would be set closer to the efficient level, given the prices, than would be true under *laissez faire* pricing and free entry. (Flath 2002, 19)

CONCLUSION

Two out of three articles on taxi-market policy by economists find taxi deregulation beneficial, and their judgments expressed in their writing show that a strong majority support deregulation. That some articles judge deregulation negatively arises in part from deregulation not having gone far enough. Also, there are unresolved issues about whether rules limiting airport services should be deemed “intervention,” and about the effect of deregulation on the largely-unobserved illegal market.

Our own judgment is that taxi deregulation can work well when done right. We hope this body of research will begin to weigh against the rent seeking and bureaucratic self-interest that currently dominates the making of taxi-market policy.

Appendix 1

[Link to Excel file](#) showing our determination of who we counted as an “economist.” Again, we treated only works coauthored by at least one economist, and we counted someone as an economist if he had a post-graduate degree in economics or a position with title “economist,” including a post in an academic economics department.

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