Small Business and Motor Carrier Regulatory Reform

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EXECUTIVE SUMMARY

This research explores the impact of U.S. Interstate Commerce Commission (ICC) regulation of the interstate motor carrier industry and recent reforms of ICC motor carrier regulation on the small business community. Three areas of major concern to the nation's small businesses are examined in depth:

1. providing motor carrier service to small businesses located in small communities
2. protecting small businessmen from the charging of discriminatory prices by ICC-regulated motor carriers
3. ensuring that small businesses have equal access to the services of contract carriers.

Chapter I discusses the role of the trucking industry in the transportation of goods for the small business community. It describes the motor carrier regulatory policies followed by the ICC during the first four decades of its regulation of interstate trucking. Recent administrative and legislative regulatory reforms of these ICC policies are then examined and their likely impact on small businesses explored.

Chapter II assesses the role of ICC regulation in promoting service to small businessmen residing in small communities and examines the impact of regulatory reform on these services. From the analysis conducted in the chapter, three conclusions are drawn. First, pre-reform ICC regulation did not appear to play any role in encouraging motor carriers to provide service to small towns. The ICC employed no mechanisms to reward carriers who served such communities, nor did it direct any punitive measures against those carriers who failed to live up to their common carrier obligations to serve small communities. Second, small towns do receive ICC-regulated motor carrier service despite the absence of any ICC enforcement or incentive mechanisms. Third, the overall level of trucking service to these communities appears to be adequate,
though much of this service is derived from sources other than ICC-regulated
general commodity LTL carriers. The overall conclusion drawn is that service
actually provided small businesses in small communities is the result of volun-
tary actions by the carriers providing the service. An obvious implication of
this finding is that these services are provided because the carriers in ques-
tion find it profitable to do so. As regulatory reform is believed not to alter
the profitability of these services, these carriers should continue to provide
service to small businessmen residing in small communities in the post-regulato-
ry reform era. Several recently conducted analyses of carrier behavior report
this to be the case in the first year following the passage of the Motor Carrier

Chapter III discusses the impact of ICC regulation and regulatory reform on
the extent of price discrimination faced by small businesses in the shipment of
their goods. The chapter notes that the Motor Carrier Act of 1935 outlaws only
undue, unjust, or unreasonable price discrimination, not price discrimination
per se. The Motor Carrier Act of 1980 does not alter the ICC's powers to regu-
late price discrimination in the post-reform era.

Evidence gathered for the study indicates that certain systematic biases
against small businesses exist in the pricing tariffs sampled for this study.
Biases against small business may also exist in the selective availability of
commodity rates for the movement of certain goods to certain markets but not for
other goods and markets.

Theoretical arguments are developed in Chapter III which conclude that in
the absence of ICC regulation price discrimination would not be viable given the
inherent competitive nature of the motor carrier industry. Any discrimination
which does exist must then be attributed to regulation per se. Thus relaxing
motor carrier regulation should not have any adverse effect on the level of
price discrimination faced by small businesses. Studies conducted since the
passage of the Motor Carrier Act of 1980 suggest that to be the case.

Chapter IV explores the impact of regulation and regulatory reform on the
ability of small businesses to obtain the services of contract carriers. While
it was alleged that pre-reform ICC regulation restricted the ability of small
businesses to sign contracts with contract carriers for motor carrier service,
the evidence gathered for this research did not support this assertion. How-
ever, it was found that small businesses signed a disproportionately small per-
centage of the sampled contract carrier contracts. This result was attributable
to the inherent economic characteristics of small business traffic, rather than
to any discriminatory treatment by motor carriers.

Our study yields one overriding conclusion: ICC regulation has had very
little positive impact on the motor carrier service offered to small business-
men in the three problem areas studied. ICC regulation had little effect in
stimulating motor carrier service to small businesses located in small communi-
ties. Regulation has not prevented carriers from engaging in price discrimina-
tion directed against small business. In the absence of regulation, it is like-
ly that motor carriers would be unable to practice any price discrimination
whatsoever. Little evidence exists to support the assertion that regulation has
prevented small businessmen from obtaining the services of contract carriers.

Given this absence of any positive impact of pre-reform ICC regulation on
the motor carriage offered small business, there is little reason to believe
that the administrative and legislative regulatory reforms that have occurred in
the past few years will have any negative effect on small business. Rather,
small businesses should benefit from the weakening of the carriers' ability to
practice price discrimination ensuing from these reforms and from the general
increase in motor carrier competition that these reforms will engender.
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# Table of Contents

Executive Summary ........................................... i
Acknowledgments .............................................. v
Table of Contents ............................................. vii

Chapter I ...................................................... 1
Chapter II . The Effects of Regulatory Reform on the Provision of Motor Carrier Service to Small Businessmen Residing in Small Communities .... 21

Chapter III . ICC Regulation and Price Discrimination Facing Small Business ........ 43

Chapter IV . ICC Regulation and the Access of Small Business to Interstate Contract Carriage .... 72

Chapter V . Summary and Conclusions ...................... 88

Bibliography .................................................. 91
Chapter I

The Problem

As is the case for all businesses, transportation plays a vital role in determining the commercial success of the nation's small businesses. Small businesses need adequate transportation services to obtain the inputs necessary to produce the goods that they sell and to transport their outputs from the point of production to the point of consumption. Holding other factors equal, if small businesses are to thrive they must be able to obtain transportation services at prices economically equivalent to those paid by larger firms in their industry. If this is not the case, the nation's small businesses will suffer a competitive disadvantage relative to their large rivals and may ultimately be forced out of business as a result.

Policies of the U.S. Interstate Commerce Commission (ICC) may play a major role in determining whether small businesses are able to obtain transportation services on a non-discriminatory basis relative to larger firms. This occurs because small businesses rely extensively on motor carriers for their transportation needs and important facets of motor carrier transportation are regulated by the ICC. One recent study (U.S. Senate Committee on Commerce, Science, and Transportation, 1978) reports that 95 percent of the small businessmen it examined used trucks to transport at least some of their outputs and 98 percent used trucks to transport at least some of their inputs. Roughly 75 percent of these firms depended heavily on motor carriage for their transportation needs. (Heavy reliance was defined as using motor carriage to transport at least 80 percent of the firm's shipments.) Thus ensuring that small businesses obtain adequate motor carriage on terms equivalent to those received by larger firms is an important aspect of promoting and developing the economic health of small businesses.
What assurances do small businesses have that they will receive adequate trucking services at prices comparable to those paid by larger firms? Many spokesmen for small business interests have assumed that U.S. Interstate Commerce Commission (ICC) regulation of the interstate motor carrier industry provides such assurances. Of particular interest is the ICC's ability to regulate the prices that regulated motor carriers charge and to control the carriers' entrance into and exit from markets. Because of these powers granted to the ICC, these spokesmen believe that

1. ICC regulation ensures the continuance of service to the nation's smaller, more rural communities. Because numerous small businesses are located in these communities, such regulation supposedly provides important protection for small businesses.

2. ICC regulation protects small businessmen from the charging of discriminatory prices by regulated motor carriers.

3. ICC regulation ensures that motor carriers render service of equal quality to small and large businesses alike.

On the other hand, other observers of the motor carrier industry, equally concerned about the plight of small business, have argued that existing regulation prevents small businessmen from securing motor carrier transportation on equal terms with larger businesses. They believe the regulatory process as it is implemented in practice is biased in favor of larger shippers and is unable to safeguard the interests of small businessmen. They assert unregulated market forces are more likely and more able to ensure that small businessmen receive trucking services on an equal footing with larger firms.
The Impact of Regulatory Reform

The validity of these arguments and counterarguments is of particular importance because the Carter Administration made relaxing ICC control over motor carrier pricing, entry, and exit one of its major legislative goals. It successfully promoted the passage of the Motor Carrier Act of 1980 which substantially relaxes ICC control over the motor carrier industry. The Act increases the reliance placed on the forces of competition, rather than regulation, to ensure that small businesses receive nondiscriminatory treatment from interstate motor carriers.

To understand the importance of the likely changes to be produced by the Motor Carrier Act of 1980, it is best to discuss in detail the mode of ICC regulation before the passage of the Act and then review the relevant language in the new Motor Carrier Act. The former will be done in Section I of this chapter; the latter, in Section II.
Section I
Pre-Reform ICC Regulation of the Motor Carrier Industry

Congress gave the ICC the responsibility to regulate the interstate trucking industry by passing the Motor Carrier Act of 1935 (the Act). The Act granted the ICC the power to regulate the prices motor carriers could charge. It also delegated to the ICC the power to regulate entry into and exit from trucking markets.

To provide service in an interstate market, a carrier needs to obtain a certificate of public convenience and necessity in the case of a common carrier or a permit in the case of a contract carrier.[1] Since certificates and permits grant the authority to provide service on a route, they are oftentimes called operating rights. Congress instructed the ICC to grant an operating right to any common carrier who provided service continuously on and after June 1, 1935. Since such rights were issued to carriers because of service they rendered prior to the passage of the Act, they are called "grandfather rights." Carriers wishing to obtain rights other than grandfather rights must apply to the ICC for the rights. To obtain a common carrier operating right, the applicant must prove he is fit, willing, and able to provide the service and that the service is required by the present or future public convenience and necessity. The latter phrase was interpreted by the ICC to require that applicant carriers prove that no existing carriers were able and willing to provide the service being requested.

If a carrier wishes to obtain an operating right, proving that it is willing is usually not difficult. The act of filing the application is deemed proof of willingness. Proving fitness usually entails demonstrating that one is a law-abiding citizen, pays his taxes, and, most importantly, has not had a history of violating ICC regulations. The ableness test is usually met by
demonstrating one is an existing trucking company or that one has sufficient equipment and personnel available to provide the requested service. In summary, the fit, willing, and able tests are not normally significant barriers to a firm's obtaining an operating right.

Proving that all incumbent carriers were unwilling and unable to conduct the requested service was a different story. Most major trucking markets in the country are already served by one or more truckers. These truckers normally protest any new entry application that threatens to allow a new firm to compete for their existing or potential business. It was the duty of the applicant to prove that these existing carriers on the route were unwilling and unable to provide the service in question. If the applicant could not prove this, then his application stood a good chance of being denied by the ICC. As proving unwillingness and inability was quite difficult, entry into existing markets was oftentimes effectively blockaded.

Despite this, motor carriers filed thousands of new operating rights applications each year. Published estimates indicate that the ICC annually granted 67-98 percent of the operating rights carriers applied for. This seems to contradict the statement in the preceding paragraph, but actually does not. The vast majority of the operating rights granted were for very small, tightly defined markets. Often they involved service to new plant sites where no carriers had existing authority to supply service.

Why this restrictionist policy? The policy initially developed because of the environment in which ICC regulation of the trucking industry was initiated: the Great Depression of the 1930's. The railroad industry was the primary lobbyist in favor of imposing regulation on interstate truckers. The railroads were suffering from increased competition from the nation's growing trucking industry. Trucking prices were falling during the depression, forcing the rail-
roads to cut their prices as well. But this price cutting reduced the railroads' profits. The railroads believed that if the truckers were regulated, motor carrier prices would rise, which would allow the railroads to raise their prices and increase their profits.

Larger, more established trucking companies also generally favored the initiation of federal regulation of their industry. They felt threatened by increasing competition from new entrants into the industry. The established firms accused the new entrants of being fly-by-night competitors who engaged in "cutthroat" or "predatory" price cutting.

Congress agreed to impose regulation on the motor carrier industry. It did so as a direct means of assisting the ailing railroads and the larger trucking firms. A primary means of accomplishing this task was by restricting entry into the motor carrier industry.

The Congress' desire to limit competition in the industry would appear to conflict with the grandfather clause. The ICC resolved this problem by interpreting this clause very strictly. If a carrier could only prove that during the grandfather clause test period it transported widgets from Dallas to Oklahoma City over U.S. Highway 77, then its certificate of public convenience and necessity would read

Widgets, from Dallas to Oklahoma City over U.S. Highway 77, serving no intermediate points, with no compensation on return.

When initially faced with new entry applications not filed under the grandfather clause, the ICC continued its strict policies toward certification. A carrier desirous of entering a new market was required to demonstrate that it is fit, willing, and able to provide the service. Having so qualified, the ICC then assessed
Whether the new operation or service will serve a useful public purpose, responsive to a public demand or need; whether this purpose can and will be served as well by existing lines or carriers; and whether it can be served by applicant with the new operation or service proposed without endangering or impairing the operations of existing carriers contrary to the public interest. (1 M.C.C. 190, 203)

As analyzed by Moore (1972, pp. 41f), "[f]undamentally the rule amounts to showing a need for the proposed service that [incumbent carriers] cannot or have been unwilling to meet. If existing carriers are willing to provide the desired service, then denial of the application is called for." In most cases the ICC imposed this decision rule regardless of the quality of service or the price of the service offered by incumbent carriers.

There are numerous complaints that this strict ICC entry policy caused a misallocation of resources in the motor carrier industry. The restrictive entry policy often made it difficult for carriers to obtain operating rights which complemented their existing rights. Often carriers possessed rights to transport limited goods in one direction only and lacked authority to serve intermediate points, as in the widget example above. It often was difficult for carriers to obtain operating rights which allowed them to haul goods on their return backhaul. The inefficiencies of conducting such operations were obvious.

For one particular class of carriers, ICC entry policies were even more extreme. These are private carriers. Private carriers are truckers who are transporting their own goods—for example, Kroger hauling groceries from its warehouse to its retail stores. Often time private carriers can utilize their trucks for one-direction hauls only. In these circumstances, they might find it worth their while to contract to provide transportation services for some other shipper who needs his goods hauled in the opposite direction. To do so, the
private trucker in question would need to obtain ICC operating rights to serve this other shipper if the movement involved regulated interstate commerce. However, until 1978 private truckers under normal circumstances were not permitted to enter the interstate for-hire industry. This severely restricted their ability to obtain backhaul traffic to balance their trucking operations. The controlling case was the Geraci decision (7 M.C.C. 369). The Geraci case involved a private trucker hauling fruits and vegetables from Florida to Cincinnati, Ohio who lacked operating rights to haul goods on the return trip to Florida. Geraci filed an application to haul alcoholic beverages from Covington, Ohio to Florida as a contract carrier. The application was unopposed by other motor carriers, though one railroad did protest the application.

The ICC rejected the application, deciding

It would be an anomalous situation under which a single operator of motor vehicles would at one and the same time, as to different parts of its operations, be a private carrier not subject to regulation and a contract carrier subject to regulation. The difficulties which such a status would present with reference to accounting, statistics, issue of securities, unifications, and the like are obvious.

Apart from this objection to such a combination of functions, it is clear that the public interest, as declared in the policy of Congress, requires motor carriers able to supply "adequate, economical, and efficient service" to the public "without unjust discriminations, undue preferences or advantages, and unfair or destructive competitive practices." A private carrier has the advantages of an assured traffic obtained without solicitation expense, freedom from the expenses which public regulation necessarily entails, and often an overhead or management expense shared with the commercial enterprise for which the hauling is done. A disadvantage which it often suffers is lack of a well-balanced traffic in both directions.

If the private carrier be able to overcome this disadvantage by operating as a contract carrier in one direction, it is evident that advantages which it enjoys in its private carriage will enable it to compete on better than even terms with most contract carriers, to say nothing of common carriers.

At first in some situations the ICC was willing to approve a few applications when it appeared that the private carrier could maintain a clear distinc-
tion between its private and for-hire operations and that the firm would not obtain any significant advantage over other for-hire carriers because of its private carriage activities. However, when the private carrier could obtain significant cost savings by engaging in for-hire activities, the ICC would deny the application on the grounds that the private carriage-for-hire carriage combination constituted unfair competition against for-hire carriers. The ICC decided in the Veon Contract Carrier Case (88 M.C.C. 279) that its approval of even the latter few applications was incorrect. It stated:

The proposed one-way operation as a contract carrier to be conducted in connection with private carriage in the reverse direction raises a question of public interest first considered in Ceraci Contract Carrier Application, 7 M.C.C. 369. In that case, and in numerous subsequent proceedings, the Commission denied authority to an applicant who proposed to conduct private carriage operations in one direction in connection with its regular business and for-hire operations in the opposite direction. One of the inherent disadvantages of private carriage in many instances is the inability of the private carrier to develop a well-balanced traffic movement in both directions. If the carrier is able to overcome this disadvantage by operating as a for-hire carrier in one direction, it may then be in a position by reason of interdependence of the private and for-hire operations to compete on better than even terms with carriers who engage exclusively in for-hire operations. Accordingly, we have held, in the absence of extenuating circumstances, that the mixing of private and for-hire operations in the manner proposed here would be inconsistent with the public interest.

In essence, then, the ICC decided that it had no duty to foster efficient operations within the private trucking industry. To do so would violate its legislative mandate to promote the inherent advantages of the modes that it was to regulate.

The ICC also impeded the development of private trucking in other ways. It prohibited one division of a corporation from hauling for another division of the same corporation. It also outlawed private truckers from leasing their equipment to regulated carriers for periods of less than 30 days. This effectively eliminated the possibility that private truckers could lease their equipment on the empty back haul and thus improve their equipment utilization. The
The collective impact of these ICC policies was to raise the costs of private carriage and thus make private carriage less attractive relative to for-hire trucking.

The ICC's pricing policies were also the subject of some controversy. Critics of regulation believed that the ICC's price setting policies caused motor carrier rates to be higher than they would be in the absence of regulation. [2] Most carrier tariffs are submitted by associations of truckers known as rate bureaus. The rates filed by a rate bureau are those approved by the firms who constitute its membership. Absent outside interference, one would expect that the firms would be tempted to take the opportunity to collude on prices in such a way as to raise their prices above a level that would merely yield the firms a normal rate of return. This tendency is likely to be reinforced because the price-setting actions of the rate bureaus were granted immunity by the ICC from the antitrust laws under authority derived from the Reed-Bulwinkle Act of 1948.

Carriers were free to file tariffs independent of the rate bureaus' decisions. However, many regulatory critics believed that this alternative did not furnish much price competition. Rate bureaus historically attempted to eliminate such competition. For example, if one carrier wished to charge a rate lower than the rate agreed on by the rate bureau members, the rate bureau would protest such a rate before the ICC as noncompensatory. The ICC would normally suspend the rate application and hold a hearing on the lawfulness of the proposed maverick rate. By raising the costs of independent or maverick actions, the rate bureaus were often able to discourage independent, competitive pricing.[3]

The ICC historically relied on industry-wide average cost pricing in approving motor carrier rates. If a rate request submitted by a rate bureau were protested, the ICC normally would examine whether the average rates of return
earned by the rate bureau members were fair and reasonable. Historically, the ICC's definition of a fair and reasonable rate of return was extremely generous.

Coupled with the ICC's entry policies, it was alleged that this price-setting system fostered the establishment of supra-competitive prices. The argument proceeded along the following lines: the ICC effectively blockaded entry into the motor carrier industry. Thus supposedly workable competition could only occur among firms already in the industry. But such competition did not work among these firms because of the ease with which the rate bureaus could protest any rate that deviated from the rates agreed to by the rate bureau members.

One result of these restrictive ICC entry policies and generous ICC pricing policies was that ownership of ICC operating rights was very lucrative. Owners were able to earn accounting profits above and beyond the firm's opportunity cost of capital. As a result, motor carrier operating rights were very valuable and often sold for large amounts of money. It was not uncommon for rights to sell from $100,000 to $1,000,000, depending upon the type of the right in question and the size of the market involved. Some rights even sold for more than $1,000,000.

The fact that carriers were willing to pay these large prices for operating rights suggested several things. First, the ICC effectively blockaded entry into many motor carrier markets. While the proof of this is somewhat complicated, the argument is quite simple: if carriers could easily enter trucking markets by obtaining an operating right for free from the ICC directly, why would they pay large sums of money to obtain "second-hand" rights from other carriers? Logic dictates that they paid these monies only because they were foreclosed from the first option by ICC policy. Second, motor carriers could make excess profits from serving interstate markets. Third, shippers paid more for trucking
services under ICC regulation than they would in the absence of regulation.

Fourth, ICC regulation induced a less than optimal allocation of traffic among the various transportation modes.
Section II

Recent Reform of ICC Motor Carrier Regulation

Because of these alleged problems induced by ICC regulation of the trucking industry conducted under the aegis of the Motor Carrier Act of 1935, many industry observers called for reforms in the manner in which the ICC regulated the motor carrier industry.

After two decades of debate, Congress passed the Motor Carrier Act of 1980 in June of that year. The law was signed by President Carter in July, 1980. Coupled with recent administrative changes promulgated by the U.S. Interstate Commerce Commission, this Act dramatically alters the environment in which motor carriers and shippers using motor carriage must operate.

The ICC, under the direction of two of its former chairmen, Daniel O'Neal and Darius Gaskins, began relaxing its control over interstate motor carriage starting in 1977. In that year in the P.C. White case the ICC broadened its definition of the "public interest" to include considering the benefits of competition in the awarding of operating authority. Later the ICC eliminated the "rule of eight" restriction which had previously limited the number of shippers a contract carrier could serve to eight firms. No limit is currently placed upon the number of shippers a contract carrier is able to serve. In the Toto decision the ICC overturned its longstanding Geraci rule which had restricted the ability of private carriers to obtain for-hire backhaul authority. In Ex Parte MC-119 the ICC altered the rule of standing for carriers wishing to protest other truckers' new entry applications.

The Motor Carrier Act of 1980 increases the scope of these regulatory reforms. The Act allows virtually free entry into trucking markets in a variety of situations:
when a community does not currently receive regular service
-- when the service is replacing abandoned rail service
-- the transportation is for the federal government
-- the shipment weighs 100 pounds or less and is transported with like shipments
-- the good being shipped is food or other edible products, agricultural limestone, or agricultural fertilizer and is being transported by an owner-operator or an exempt agricultural goods carrier whose exempt operations are larger than its edible goods traffic.

Carriers are exempt from ICC economic regulation in several situations:
-- the good being shipped is livestock or poultry feed, agricultural seed, or plants being shipped to farmers or to distributors of such products to farmers
-- the good is being shipped by motor carrier incidental to its transportation by aircraft
-- the good being shipped is natural, crushed vesicular rock being used for decorative purposes
-- the good being shipped is used pallets or used empty containers
-- the shipment involves intracorporate hauling for wholly-owned subsidiaries of the same corporation.

In all other situations, the Act significantly relaxes entry into the industry by shifting the burden of proof in protested cases from the applicant to the protesting carrier. The protestant to the new entry application must be able to demonstrate that the harm to its operations outweighs the gains to the public if the new route is awarded. If the protestant cannot so demonstrate, the route will be awarded to the applicant. Moreover, the Act restricts the set of carriers who have automatic standing to protest an entry application to those carri-
ers who have actually performed the service requested in the entry application in the previous year or who have "actively in good faith, solicited service within the scope of the application" during the preceding year or have a similar pending application before the ICC. These changes promulgated by the Act significantly liberalize entry into the motor carrier industry.

The Act significantly increases the role of free market competition in the establishment of motor carrier prices. The Act creates a zone of rate freedom for the pricing of motor carrier services. Carriers are free to raise or lower their prices by up to ten percent per year for two years. The ICC can still challenge rates on other grounds, however—e.g., that a rate is discriminatory. In markets the ICC deems to be sufficiently competitive, the ICC may increase this zone by an additional five percentage points per year. The boundaries of the zone of rate freedom are to be indexed after the second year by changes in the Producer Price Index. Because it is the boundaries that are being indexed, and not the base rate, in a relatively short period of time the range of motor carriers rates that will be effectively freed from ICC challenge that they are unreasonably high or unreasonably low will grow quite large.

The Act drastically curtails the power of motor carriers to collectively set rates via membership in rate bureaus. The Act mandates that rate bureau members cannot discuss or vote on tariffs proposed in the zone of rate freedom. After January 1, 1981, only carriers with authority to transport the goods in question may actually vote upon the proposed rate. Rate bureaus may not involve themselves in the establishing of single-line rates beginning in 1984. In total these rate-making reforms significantly reduce regulatory review of motor carrier pricing and significantly increase the role of free market forces in the establishment of motor carrier prices.
Section 6 of the Motor Carrier Act also contains significant language. Section 6 mandates the removal of certain restrictions embedded in existing motor carrier operating rights. It calls for elimination of gateway restrictions in motor carrier operating authorities. It also requests the ICC to reasonably broaden the commodity and geographic restrictions in existing rights.

The ICC has already initiated a rulemaking proceeding to establish new rules for broadening the definitions of commodities and geographic areas. The proposed rule in this proceeding, if enacted, would be of major significance. It calls for broadening all geographic descriptions in existing rights to at least a county level and for broadening all commodity descriptions so that the right allows the transport of all the goods in at least one of 30 or so commodities classes. Thus a right authorizing the transport of ovens and stoves from the Cleveland Range plant in Cleveland, Ohio to Elk Grove Village, Illinois would at a minimum now authorize the transport of fabricated metal products from Cuyahoga Country, Ohio to Cook County, Illinois. Given that there are literally tens of thousands of operating rights that could be broadened in similar fashion, such an interpretation of Section 6 would significantly increase the level of competition in the motor carrier industry.
Section III
Impact of Regulatory Reform on Small Business

These administrative and legislative changes in the means by which the ICC regulates the motor carrier industry will have major impacts on motor carriers and on shippers. The new law presents shippers with new challenges to obtain transportation services on par with their competitors. It also affords them the opportunity to dramatically lower their transportation costs in certain circumstances. For example, users of private carriage can more readily obtain backhaul loads. Backhaul loads under the new law can be obtained from other firms in the private carrier's corporate family under the intracorporate hauling exemption clause of the Act. Backhauls can also be more easily secured by hauling newly exempted commodities, such as animal feeds, on a for-hire basis. Finally, private truckers can more easily apply for limited for-hire authority to secure backhaul authority in line with the Toto decision.

Aggressive traffic managers can use the new pricing and entry freedoms granted motor carriers to secure better services and lower prices from for-hire carriers as well. Increased ease of entry will allow traffic managers to shop for carriers willing to offer the most attractive price and service packages. The managers can then support the applications of such firms before the ICC with heightened expectations that the applications will receive regulatory approval. The threat of such action will likely induce carriers currently servicing the shipper in question to improve the services they offer. Of course, the new law facilitates the incumbent carriers' ability to do so by increasing their opportunities to balance their traffic flows, improve their equipment and facilities utilization, etc. through their own new entry applications.
However, these reforms cut both ways. Because the Motor Carrier Act of 1980 provides major opportunities for creative traffic managers to cut their motor carrier transportation costs, shippers who assume that the transportation practices that worked in the pre-reform era will continue to be successful in the new regulatory environment will be making an expensive mistake. They will find that their transportation costs will rise relative to their competitors. Their survival as viable enterprises will be in jeopardy until they act to secure transportation services on terms equivalent to their competitors. Thus regulatory reform in the motor carrier industry provides shippers with both new opportunities and new challenges to secure lower cost or higher quality transportation service. Because of the revolutionary change in the law, significant advantages will be gained by those firms that move quickly to seize the marketing and pricing advantages offered them by the passage of the Motor Carrier Act of 1980.

Goal of the Research

Despite these new opportunities, it is not at all clear that small businesses will gain relative to larger firms as a result of motor carrier regulatory reform. The purpose of this paper is to explore the impact of ICC motor carrier regulation and recent regulatory reforms on three areas of concern to the small business community:

1. continued provision of motor carrier service to small businesses located in the nation's smaller communities
2. protection of small businessmen from the charging of discriminatory prices by regulated motor carriers
3. ensuring that both small and large businessmen have equal access to all forms of motor carriage—in particular, contract carriage.
The first of these areas is explored in Chapter II. Chapter III investigates the second of these three problems. The third area is examined in Chapter IV. Our conclusions are offered in Chapter V.
Footnotes

1. Interstate carriers are exempt from the requirement to obtain operating rights in certain situations. There are three major exemptions:

   1. Carriers transporting agricultural goods are exempt from this requirement. This is called the "agricultural exemption."
   2. Firms carrying their own goods in furtherance of their own primary business (which cannot be transportation) are exempt from the requirement under the "private trucking exemption."
   3. Carriage within a multi-state urban area is exempt under the "commercial zone exemption."

2. Some industry observers have argued that even if deregulation did lower prices, such lower prices would not necessarily be beneficial. Sampson (1976), for example, has asserted

   [E]ven if lower rates should result from deregulation, this would not necessarily be "better". Most deregulators (including many economists) appear to have a fixation on prices, ignoring the fact that prices and quality usually are interrelated. If price decreases lead to even greater quality decreases, buyers may lose rather than gain.

   However, Sampson's argument is inconsistent with the voluntary transactions that would occur in an unregulated marketplace. If "price decreases lead to even greater quality decreases" such that buyers would lose rather than gain, then buyers would renegotiate with potential suppliers of motor carrier service and voluntarily pay higher prices to receive the higher quality service.

3. In Ex Parte No. 297, the ICC restricted the ability of rate bureaus to protest the independent filings of their members. While the ICC announced this policy in 1977, implementation was delayed for several years due to litigation.
Chapter II

The Effects of Regulatory Reform on the Provision of Motor Carrier Service to Small Businessmen Residing in Small Communities

The role of the U.S. Interstate Commerce Commission in ensuring that small businessmen located in the nation's small communities receive adequate motor carrier service is the subject of some controversy. One of the major arguments advanced against regulatory reform in the motor carrier industry was the impact of reform on the service offered to shippers in these communities. While Congress and the President ultimately were persuaded by the general arguments of the regulatory reform advocates and passed and signed the Motor Carrier Act of 1980 into law, the issue of the role of regulation in promoting service to small communities was left undecided. In Section 28 of the Motor Carrier Act of 1980, the Congress called upon the ICC to "make a full investigation and study of motor carrier service to small communities," emphasizing service to communities with populations of less than 5,000. The ICC was directed to provide this report by September, 1982.

The Debate

Numerous participants in the regulatory reform debate believe that the ICC is the bulwark which protects the nation's small communities from the loss of motor carrier service. Former ICC Chairman George Stafford (1974) has argued that regulation is needed to ensure that small communities receive motor carrier service, an opinion shared by his colleague Commissioner Brown. Commissioner Brown believes that in the absence of ICC regulation "the small carrier, the small shipper, the small community, and the small producer would encounter absolute chaos (1975, p. 7)." The leading industry trade association, the American
Trucking Associations, similarly claims that "small communities would be the first to feel the effects of the loss of essential common carrier services (1976, p. 3)" if significant relaxation of federal regulation of motor carriage occurred.

Others dispute these claims. Former DOT official John Snow (1977, pp. 27ff.) believes that ICC regulation has had negative effects on the motor carrier services offered to residents of small communities. He has argued that service to such communities would improve if ICC control over the industry were relaxed. DOT economist Georgia Canellos (1976) shares this opinion in a DOT staff paper.

The resolution of these arguments is important to small business. Numerous small businesses are located in small, rural communities. For example, in the Midwest, 222,000 small businesses—roughly 30 percent of the region's small businesses—reside in such communities. The overwhelming majority of them are heavily dependent upon motor carriers for their transportation needs. Thus, if the opponents of regulatory reform are correct, ending the role of the ICC in promoting trucking service to small communities could be a major blow to the health of the nation's small businesses.
Section I

ICC Promotion of Service to Small Communities

Regulatory Incentives

There is little doubt that the ICC possesses the power to promote service to small communities. In order to provide interstate trucking services as a common carrier, one must normally obtain a certificate of public convenience and necessity from the ICC.\[1\] This certificate confers an obligation, known as the common carrier obligation, to provide service to all shippers who request the service. Vigorous enforcement of the common carrier obligation by the ICC would be sufficient to ensure that small communities receive motor carrier service.

However, it does not appear that the ICC vigorously or even effectively enforces the common carrier obligations of truckers to serve small communities. Under the old (and new) Motor Carrier Act, a carrier can abandon a small community without first obtaining ICC permission to do so. The ICC can require the carrier to reinstitute the abandoned service at its discretion.\[2\] Normally the ICC does not actively intervene in a route abandonment case. It will do so only if affected shippers protest the carrier's action. If it receives a complaint from a shipper, the ICC will usually respond as follows:

1. The Commission determines the validity of the complaint; that is, that service has been curtailed or halted.
2. The ICC reviews the complaint with the carrier. A carrier may not refuse service along a certificated route unless its equipment is fully utilized.
3. If, following a review of the carrier's dispatching process, the ICC finds that equipment is fully utilized, the case is dropped. If, on the other hand, equipment is available, the ICC refers the case to administrative handling.
4. The carrier is ordered to improve service. If it fails to comply, the ICC may seek injunctive action to require service.\[3\]
Part of the ICC's problem lies in the magnitude of its tasks relative to the amount of resources under its control. It only has 2000 employees. With these personnel it must regulate 16,500 interstate truckers as well as the interstate operations of the country's railroads, water carriers, and freight forwarders. With so few resources, the ICC cannot actively enforce truckers' common carrier obligations to small communities. The ICC has rarely, if ever, penalized motor carriers for violating ICC orders to serve small communities.[4]

As a result, motor carriers frequently have ignored their common carrier obligations to serve small communities on their routes. The Federation of Rocky Mountain States (FRMS) (1975) discovered that numerous truckers with small community common carrier obligations in the Rocky Mountain states did not actually furnish trucking service to their towns. In one sample of 11 Wyoming cities, the Wyoming Public Service Commission reported to the FRMS that only half of the truckers with operating authority to service small towns actively attempted to fulfill their common carrier obligations to the sampled communities. The FRMS report concluded that in its nine-state study area

[t]he number of carriers certificated to serve the territory, in general, is large, but their actual presence at the "grass roots" level is not great. (p. 45).

Breen and Allen (1979) have also examined the willingness of carriers to honor their common carrier obligations to small communities. They studied the operations of 15 major regular route carriers serving the lightly populated Inland Northwest. They found that those carriers did not provide service to all the communities they were legally obligated to serve.

A second method for inducing carriers to serve small communities is through the development of a cross-subsidy scheme. If, for example, the ICC would allow a carrier to enter a large, profitable market only if it served a small, unpro-
fitable small community market, the carrier might agree to provide the latter service in order to obtain the rights to perform the former service. Alternatively, the ICC might allow a motor carrier to raise its prices on its profitable routes to supracompetitive levels only if it agreed to provide small community services.

However, the ICC does not utilize such cross-subsidies to induce truckers to furnish small community services. Consider its price setting policies. Because of the inherent complexity of monitoring 16,500 trucking companies, motor carrier prices are approved on a regional industry basis by the ICC. In most situations, regional rate bureaus, to which most trucking companies operating in a region belong, propose rates for the given region. If the tariff is protested, the ICC will scrutinize the proposed rates and determine whether the proposed price changes will allow the carriers as a group to earn a fair rate of return.

Under this approach, the prices charged and the amount of excess profits earned by a trucking company in one market are not functionally related to the amount of losses it incurs in serving unprofitable small community markets. The ICC has not developed regulatory policies to guarantee that firms suffering losses in one market will be able to earn offsetting excess profits in another market. The ICC has not developed regulatory policies to require truckers enjoying excess profits in one market to dissipate those profits by subsidizing losses in another market. Thus the pricing mechanism is not being used to cross-subsidize unprofitable small community markets.

The ICC has also not utilized its entry and exit powers to encourage small community service. As mentioned in Chapter I, the ICC's pre-reform entry policy was extremely restrictive. More to the point, the ICC did not (and has not) developed differential policies which grant carriers serving unprofitable small
communities easier treatment when they apply to serve profitable large community markets.[5]

Examination of ICC decisions and other public records indicates that the ICC has not developed any other form of cross-subsidy to promote small community motor carrier service. One can accordingly conclude that the ICC has not utilized cross-subsidization to encourage the provision of trucking service to small communities.

Thus it appears that the ICC has not in any manner actively encouraged the provision of motor carrier service to small communities. It has not developed cross-subsidization schemes which encourage firms to provide trucking service to small towns. While it possesses the power to require carriers to honor their common carrier status, it does not actively monitor whether carriers are in fact living up to these obligations. Thus there is little reason to believe that the ICC has had any significant effect in promoting service to the nation's smaller communities.
Section II

Shipper Satisfaction with Existing Service

Nonetheless, it appears that small businessmen located in small, rural communities were generally satisfied with the motor carrier service they received under pre-reform regulatory arrangements according to three recently released surveys of small businessmen residing in such towns. In the first survey, Cecil Hynes (1979) contacted 107 manufacturing firms and 46 retailers and wholesalers in Maryland, Virginia, and West Virginia classified as small businesses by the Small Business Administration. Ten percent of these shippers, when asked by Hynes to rate the overall quality of service provided by ICC-regulated carriers, judged it excellent; 38 percent labeled it quite good; 42 percent called it adequate. Only 7 percent rated the common carrier service they received as minimally acceptable and a mere 3 percent judged it unsatisfactory (p. 236). Furthermore, these small businessmen were generally satisfied with the overall level of competition among the common carriers serving them. Eighty-two percent of the shippers believed that the number of carriers serving them was adequate. Only sixteen percent argued that there were too few carriers furnishing service, while 2 percent believed there were too many carriers offering to transport their goods (p. 235).

The second study was conducted by Policy and Management Associates, Inc. (PMA) for the U.S. Senate Committee on Commerce, Science, and Transportation (1978). PMA surveyed the attitudes of a scientifically-selected nation-wide sample of small community shippers and carriers. Shippers were selected from firms residing in 205 U.S. communities ranging in population from 1,000 to 25,000. The overwhelming majority of the shippers contacted were very small: 55.5 percent hired fewer than 10 employees and 28 percent employed between 10 and 49 persons (p. 44). Accordingly, the PMA survey of small community shippers strongly reflected rural small business attitudes.
The sampled small community shippers were generally satisfied with the trucking service they received. Sixty-five percent of the shippers rated their outbound service as excellent or quite good; only six percent rated it as unsatisfactory. For inbound shipments, 59 percent rated the service they received as quite good or excellent and only three percent rated it as unsatisfactory (p. 67).

A collection of four reports performed by DOT staffers constitute the third study. In the initial report, A Study of Trucking Service in Six Small Communities (Borlaug et al., 1979), members of the staff of the DOT Office of Transportation Regulation interviewed shippers in two communities in each of the states of Kentucky, New Mexico, and Nevada. The communities were selected by members of the U.S. Senate Committee on Commerce, Science, and Transportation residing in those states. Subsequent to the performance of the study, the DOT staff surveyed trucking service to two small communities in Alabama (Marvich and Thornton, 1980), two in Kansas (Orvis, 1980), and six in Michigan (Borlaug and Phillips, 1980).

The methodology of all of these DOT state studies were similar. In each case, interviews were conducted with numerous businesspeople in each sampled community. The interviewees were asked how many ICC-regulated carriers were authorized to serve their community and how many actually provided service. They were queried as to other sources of motor carrier transportation—private, unregulated, and non-ICC regulated. The sampled businessmen were also questioned if they were satisfied with various dimensions of the service they received—price, quality, promptness, loss and damage, etc. Finally, they were asked for their suggestions to improve motor carrier service to their towns.

Table 1 reports salient statistics about the 16 communities studied by DOT. The populations of the 16 communities ranged from 150 to 15,400, but all
Table 1

Characteristics of Communities Surveyed by DOT

<table>
<thead>
<tr>
<th>Community</th>
<th>Population</th>
<th>Authorized</th>
<th>Actually Serving</th>
<th>Number of Interviews</th>
<th>Number of Small Businesses Interviewed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calera, AL</td>
<td>1700</td>
<td>11</td>
<td>5</td>
<td>9</td>
<td>8</td>
</tr>
<tr>
<td>Vernon, AL</td>
<td>2200</td>
<td>5</td>
<td>5</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Marion, KS</td>
<td>2052</td>
<td>8</td>
<td>3</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>Scott City, KS</td>
<td>4001</td>
<td>7</td>
<td>2</td>
<td>11</td>
<td>11</td>
</tr>
<tr>
<td>Olive Hill, KY</td>
<td>2060</td>
<td>5</td>
<td>5</td>
<td>17</td>
<td>16</td>
</tr>
<tr>
<td>Symsonia, KY</td>
<td>550</td>
<td>3</td>
<td>2</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Annada, MI</td>
<td>1400</td>
<td>4</td>
<td>2</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Cass City, MI</td>
<td>2000</td>
<td>2</td>
<td>2</td>
<td>9</td>
<td>10</td>
</tr>
<tr>
<td>Deford, MI</td>
<td>150</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Escanaba, MI</td>
<td>15,400</td>
<td>2</td>
<td>2</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Kingston, MI</td>
<td>500</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Rome, MI</td>
<td>4000</td>
<td>14</td>
<td>14</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>McGill, NV</td>
<td>2000</td>
<td>5</td>
<td>1</td>
<td>12</td>
<td>11</td>
</tr>
<tr>
<td>Pioche, NV</td>
<td>700</td>
<td>5</td>
<td>1</td>
<td>13</td>
<td>13</td>
</tr>
<tr>
<td>Taos, NM</td>
<td>2500</td>
<td>6</td>
<td>5</td>
<td>18</td>
<td>14</td>
</tr>
<tr>
<td>Truth or Consequences, NM</td>
<td>4700</td>
<td>4</td>
<td>4</td>
<td>18</td>
<td>16</td>
</tr>
</tbody>
</table>

* Not including United Parcel Service.
but one of the communities examined had less than 5,000 population. The median population was 2,026. The overwhelming majority of the businessmen interviewed represented small businesses: 147 out of 158 firms, or 93 percent. Similar to the findings of Breen and Allen, in many of the communities the number of authorized carriers was greater than the number actually providing service.

While there are a few exceptions, in general the interviewed small businesses were generally satisfied with the motor carrier service they received, "primarily because of the availability of service from a great variety of sources and because they have come to expect slow and infrequent service (Borlaug et al., pg. ii)." United Parcel Service (UPS) was well thought of; many shippers suggested that the weight restrictions facing UPS be relaxed. Parcel post was not highly regarded; bus package express was viewed as good but too expensive to use for normal transactions. The service offered by ICC regulated less-than-truckload (LTL) general commodity carriers was not universally praised. Depending upon numerous conditions peculiar to the individual community--e.g., location to major highways, proximity to larger cities, etc.--these services ranged from quite good to "too infrequent to meet service needs (Borlaug et al., pg. iii)." Many shippers relied on private carriage. Private carriage was deemed to provide good service at reasonable prices. As a result, the DOT investigators found that "there is a significant amount of private carriage in proportion to total truck transportation (Borlaug et al., pg. ii)."

Other sources of motor carrier service were available to the residents of the 16 sampled communities. Some communities were served by regional small package delivery services. Other towns enjoyed service from intrastate LTL carriers. Shippers also provided their own pick-up and delivery services. Shippers often reported having to drive to the nearest terminal to pick up or deliver their own goods, especially if the shipment was too large for UPS. As might
be expected, residents of a given town often performed these pick-up and delivery services for one another on an ad hoc basis. While technically federal operating rights might be needed to perform these services legally, no one seemed interested in prosecuting such violations of the Motor Carrier Act.

The results of the DOT surveys can best be summarized using DOT's words:

[I]n the ... communities studied, a consistent trend emerges. Overall service to these communities is generally perceived as adequate, but this is largely due to the excellent service provided by small package specialists, private carriage and intrastate carriers. The service provided by general freight ICC-regulated carriers tends to be infrequent, slow and often at rates which are perceived as high....

Results from these interviews support findings from earlier studies that show the common carrier obligation is not an effective means of ensuring that small communities receive service from all carriers authorized, and thereby required, to provide service. Common carriers must "hold themselves out" to serve the general public and provide "reasonably continuous and adequate service," but they are permitted considerable discretion as to the quantity and quality of service offered....

The results of these interviews show that trucking service to small communities is adequate under the present system. However, this adequacy is due to the resourcefulness of individuals in these towns, not due to the regulated system.

(Borlaug et al., pp. viii ff.)
Section III

Profitability of Small Community Service

These three surveys suggest that service to small businessmen residing in small communities was generally viewed as adequate in the pre-reform period. Respondents to the Hynes and PMA studies had a higher opinion of ICC-regulated motor carrier service than did participants in the DOT surveys.

Would the respondents to these studies be as satisfied with the service they would receive if ICC control over pricing, entry, and exit were substantially weakened? The apparent answer to this question is yes. The reason is simple: small communities appear to be profitable for motor carriers to serve. Since firms are motivated by the goal of maximizing their profits, truckers will furnish these profitable small community services of their own free will.

Five recent studies demonstrate the profitability of service to small, rural communities. The first is the above mentioned Policy and Management Associates, Inc. survey. PMA contacted the motor carriers serving the communities in its sample and asked them whether they found serving the communities "desirable" or not. Table 2 reports PMA's findings. The average number of carriers serving a town ranged from 3.8 carriers in the 1,000-2,500 population category to 9.9 carriers serving towns from 10,000 to 25,000 population (p. 87). An overwhelming majority of these carriers rated service to these communities as desirable: the percentage ranged from 75 percent in the smallest community size group to 93 percent in the largest, as column 3 shows. If one interprets the adjective desirable to refer to service which yields the trucker an acceptable level of accounting profits, by multiplying the percent considering service desirable in column 3 by the number of carriers offering service reported in column 2, one can derive the average number of carriers who believe providing service is profitable for each community size class. This calculation is reported in column
<table>
<thead>
<tr>
<th>Community Population Size</th>
<th>Number of Carriers Providing Service</th>
<th>Percent Rating Service Desirable</th>
<th>Number Rating Service Desirable</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,000 to 2,500</td>
<td>3.8</td>
<td>75%</td>
<td>2.8</td>
</tr>
<tr>
<td>2,500 to 5,000</td>
<td>6.0</td>
<td>85</td>
<td>5.1</td>
</tr>
<tr>
<td>5,000 to 10,000</td>
<td>9.2</td>
<td>84</td>
<td>7.7</td>
</tr>
<tr>
<td>10,000 to 25,000</td>
<td>9.9</td>
<td>93</td>
<td>9.2</td>
</tr>
</tbody>
</table>

4. As would be expected, the average number of carriers labeling their services as desirable increases as community size increases. But even in the smallest size group an average of 2.8 carriers rate service desirable. Thus even these very small towns would receive service in the absence of regulation. Breen and Allen's study reports similar results. They scrutinized the actual service provided eight smaller communities in the study region. They discovered that despite the failure to serve...by some of the study carriers... the small shipment service needed and received by these communities was adequate overall. The adequacy of service results from the fact that small short haul specialists are willing and able (i.e. the traffic is profitable for them to handle) to provide interstate common carrier service even in communities which larger study carriers prefer to avoid (p. iv).

The third study of note is that conducted by R.L. Banks and Associates (1976). Banks examined the operations of a sample of 35 motor carriers who specialized in serving small communities. Of the 32 carriers in operation in the two sampled years, 1969 and 1974, only one carrier failed to make an accounting profit in either one of the years. Twenty carriers made accounting profits in both of the sampled years. Because of the profitability of these carriers, Banks concluded that there was no reason to believe that small community services need be unprofitable. Upon further scrutiny of the operations of nine of the profitable carriers, Banks found the apparent secret of their success: these carriers prospered because they geared their entire operations to the requirements of small community markets.

In the fourth study of interest, Pustay, Frew, and Drake (1980) examined the determinants of the market value of ICC motor carrier operating rights which authorized the transport of general commodities on small community routes. Such operating rights are often bought and sold by motor carriers for considerable sums of money.
Pustay, Frew, and Drake noted that economic theory indicates that the market value of an operating right will reflect the present discounted value of the stream of profits attributable to the right. By analyzing the determinants of the market value of operating rights one can concomitantly analyze those factors which make a route profitable or unprofitable to serve. These researchers collected a sample of operating rights that had been transferred between two common carriers. They regressed the price at which the motor carrier operating right had been sold against route length, the population of the largest community on the route, the sum of the populations of the small communities on the route, per capita income, a proxy for network integration, and the number of intramodal competitors on the route. Pustay, Frew, and Drake concluded that one could not reject the null hypothesis that all small community routes are profitable to serve. A corollary result was that regulation had the effect of raising the prices paid by small community shippers and/or of lowering the quality of services received by small community shippers relative to what they would pay and/or receive if the market were deregulated.

In the fifth study, Friedlaender and Spady (1979, pp. 320 ff.) sought to determine whether any particular type of traffic was being systematically cross-subsidized by ICC regulation. They discovered no evidence to suggest "that traffic associated with light-density rural traffic is subsidized by the rate structure (p. 331)." Rather, they found weak evidence that light-density rural traffic is relatively more profitable to the carriers than high density traffic—i.e., that rural communities were subsidizing larger communities, rather than the reverse.

These five studies, each utilizing a vastly different approach, reach the same conclusion: small community service is profitable for motor carriers to provide.[6] Coupled with the absence of active ICC enforcement of common car-
rier obligations, this suggests that carriers currently serving small businessmen located in small communities do so because the service is profitable to provide. Because of this profitability, motor carriers will voluntarily furnish these small communities with trucking service regardless of the existence or absence of ICC regulation. Relaxation of ICC regulation is thus likely to have little impact on small businesses located in these communities.
Section IV

Initial Post-Reform Effects on Small Community Service

Despite the passage of only one year since the signing into law in July, 1980 of the Motor Carrier Act of 1980, some evidence does exist regarding the initial impact of regulatory reform on service to small businesses residing in small communities. The Interstate Commerce Commission, in response to requirements of Section 28 of the Motor Carrier Act, randomly sampled 374 firms in small communities across the country. The ICC asked these firms whether the quality of service they received in the six months following the passage of the Act was better or worse than the service they received before the Act's passage.

Table 3 reports the results of this survey. Post-Act service availability was deemed to have improved by 13.1 percent of the firms sampled who received goods from ICC regulated carriers; 1.7 percent said availability had deteriorated. For shippers of freight, 14.5 percent reported more service was available since the passage of the Act; 4.9 percent claimed less service was available. Similar results were reported for questions concerning on-time delivery and freight losses, though some deterioration in the settling of loss claims was reported.

The ICC also examined the effect of the Act on the number and types of small community service complaints it received. The ICC found that "there was a decline in both the number of small community complaints and the proportion of complaints coming from small communities."[7]

The ICC also studied the impact of the deregulation of motor carriage in Florida on the service offered to small communities. Motor carriage was totally deregulated in Florida as of July 1, 1980 due to sunset legislation. It found no evidence to suggest that small community service had deteriorated as a result of deregulation:
Table 3

ICC Survey of Pre-and Post-Act
Service Quality in Small Communities

<table>
<thead>
<tr>
<th>Service Availability</th>
<th>On-Time Service</th>
<th>Freight Condition</th>
<th>Claims Settlement</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Receivers</td>
<td>Shippers</td>
<td>Receivers</td>
</tr>
<tr>
<td>Improved Since Passage of Act</td>
<td>13.1%</td>
<td>14.5%</td>
<td>18.2%</td>
</tr>
<tr>
<td>About the Same</td>
<td>85.2</td>
<td>80.6</td>
<td>79.8</td>
</tr>
<tr>
<td>Deteriorated Since Passage of Act</td>
<td>1.7</td>
<td>4.9</td>
<td>2.0</td>
</tr>
</tbody>
</table>

Source: Interstate Commerce Committee. Interim Report: Small Community Service Study
Many of those opposed to regulatory reform worried that carriers would cease service to small communities if given freedom to design their own route structures. Our review of tariffs in Florida, however, suggests that carriers still voluntarily list small community points, and have not taken actions to shed this service or substantially increase small community rates. Our interview with a Florida traffic consultant, providing analysis of logistics problems for hundreds of Florida shippers, supported the findings of the tariff investigation. They had no clients who could not get service, and were unaware of any increases in shipper problems with small community service.

This evidence, while limited, is consistent with our arguments developed above. There is no evidence to suggest that regulatory reform has negatively impacted on small community service. This is not surprising given the ICC's policy of "benign neglect" towards small businessmen residing in small communities.
Section V
Conclusions

While there are minor discrepancies between these studies due in part to different methodologies and data sets, in general three inferences can be drawn from these studies and from our analysis of ICC regulation. First, under pre-reform ICC regulation, the common carrier obligation did not serve as a binding constraint on the behavior of the ICC-regulated motor carriers. Carriers who chose not to serve a community could do so without fear of ICC intervention. Second, many small towns are provided service by ICC-regulated carriers because the service is profitable for these carriers to provide. It is the "carrot" of profits, and not the "stick" of ICC enforcement of common carrier obligations, that motivates the carriers to provide small community services. Third, overall trucking service to these communities is generally adequate. This adequacy results from provision of motor carrier services by numerous non-ICC regulated general commodity sources, including United Parcel Service, parcel post, private trucking, intrastate carriers, and ad hoc, possibly illegal, provision of pick up and delivery service of one's own goods and of the good of one's neighbors.

While small businessmen in the nation's small communities generally are able to obtain adequate motor carrier transportation, this transportation is obtained in large part from sources other than the ICC regulated general commodity carriers. Whatever transportation is provided by ICC regulated carriers apparently stems from the voluntary actions of these carriers (i.e., because it is profitable) and not because of ICC regulation. Accordingly, it would appear that ICC regulation has not had any significant positive effect on the service offered small businessmen located in small communities. The advent of regulatory reform should thus not have any significant negative effects on the service offered to the nation's small businessmen residing in these communities and
these businessmen should have little fear from relaxation of federal regulation of the motor carrier industry. Several studies reviewing the first year's impact of the Motor Carrier Act of 1980 confirm this conclusion.
FOOTNOTES

1. In several well-defined instances, carriers do not need to obtain such certificates (see Chapter 1).

2. The ensuing discussion follows in part that in Pustay, Frew, and Drake (1980).


5. Other regulatory agencies have developed policies explicitly utilizing such differential treatment. One criterion the Civil Aeronautics Board used in awarding new routes was whether an applicant airline required "strengthening" because of the magnitude of unprofitable small community service it offered (Caves, 1962).

6. Note there is no contradiction between the Breen and Allen study and the results of the other four studies. These studies do not report that all carriers will find serving a given community profitable. Rather, they demonstrate that some carriers will find serving small communities profitable given individual firm circumstances.

Chapter III*

ICC Regulation and Price Discrimination
Facing Small Business

A second concern raised in the motor carrier regulatory reform debate is the role of ICC regulation in ensuring that the nation's small businesses do not suffer from discriminatory prices charged by the interstate motor carriers. Some advocates of small business interests argue that ICC regulation protects small businessmen from being victimized by discriminatory motor carrier prices. These advocates express great concern that unregulated motor carriers will charge smaller businesses much higher prices than larger businesses for equivalent services. Thus these spokesmen fought unsuccessfully the attempts to relax ICC regulation of the motor carrier industry.

Supporters of motor carrier regulatory reform disagree with this contention. They recognize that Section 216(d) of the Interstate Commerce Act specifically outlaws undue or unjust price discrimination:

All charges made for any service rendered or to be rendered by any common carrier by motor vehicle engaged in interstate or foreign commerce in the transportation of passengers or property as aforesaid or in connection therewith shall be just and reasonable, and every unjust and unreasonable charge for such service or any part thereof, it prohibited and declared to be unlawful. It shall be unlawful for any common carrier by motor vehicle engaged in interstate or foreign commerce to make, give, or cause any undue or unreasonable preference or advantage to any particular person, port, gateway, locality, region, district, territory, or description of traffic, in any respect whatsoever; or to subject any particular person, port, gateway, locality, region, district, territory, or description of traffic to any unjust discrimination or any undue or unreasonable prejudice or disadvantage in any respect whatsoever.

However, the regulatory reform advocates note that the Act only prohibits motor carriers from engaging in "unjust" or "unreasonable" discrimination or inflicting "undue or unreasonable preference or advantage" to any "person, port, gateway, locality, region, district, [or] territory." Preventing unjust, undue,
or unreasonable discrimination is not the same as preventing discrimination. The filing of discriminatory rates is not illegal *per se*. Only the ICC can judge the reasonableness or unreasonableness of a carrier's attempt to price discriminate.
Section I
Motivation for Price Discrimination

Price discrimination exists when two individuals are assessed different prices for a good or service when the costs of providing the good or service to them are equal. Price discrimination can also exist when two people are assessed the same price for a good or service when the costs of providing the good or service to them differ. Charging different customers different price to marginal cost ratios also constitutes price discrimination (see Kahn, 1971).

Motor carriers, like any other firm, clearly have an incentive to engage in discriminatory pricing practices. Doing so will increase the firm's profits above the level it could earn if it did not engage in such behavior.

The type of price discrimination available to trucking firms is third degree price discrimination. To be successful, the selling firm must be able to segment its potential customers into two or more groups. A demand curve and a marginal revenue curve can then be drawn for each of the groups. If the elasticities of demand differ among the demand curves of each of the groups, the trucker will find it profitable to engage in discriminatory pricing.

To see this graphically, consider Figure 1. Figure 1a depicts the firm's profit-maximizing solution assuming it cannot price discriminate. It will charge a price $P_k$ and produce an output $Q_k$. By segmenting its market into two groups, group $i$ (Figure 1(b)) and group $j$ (Figure 1(c)), it can increase its profits. In market $i$ it will charge a price $P_i$ and produce an output $Q_i$. In market $j$ it will charge a price $P_j$ and produce an output $Q_j$. In market $i$ it charges a higher price and produces a lower output relative to the profit-maximizing price-output combination it chose in Figure 1(a); the reverse is the case in market $j$. By this process the firm will increase its profits relative to the nondiscrimination case.
Figure 1
Effects of Third Degree Price Discrimination

1 (a)  

1 (b)  

1 (c)
Four conditions are necessary for a price discrimination scheme to be successful. First, the elasticities of demand of the different groups must vary among the groups. Second, these differences must be recognized by the would-be price discriminating firm. Third, the firm must find a means of preventing arbitrage among the different groups. Lastly, the firm must enjoy market power.

These four conditions were met in the ICC-regulated motor carrier industry prior to the passage of the Motor Carrier Act. However, two of the conditions appeared to be met solely because of pre-reform ICC policies. Accordingly, price discrimination would not be viable in the absence of regulation.

Elasticities of Demand

Elasticities of demand do vary among shippers of various goods to various communities. The elasticity of the demand for transportation of a good equals the elasticity of demand for the good itself times the proportion of transportation costs to the total costs of production, as Ann Friedlaender has shown (1969). As both factor differ among commodities, the elasticity of the demand for transportation will also differ among different goods shipped to a given market. Of course, in the context of the problem at hand, the elasticity of demand for regulated motor carrier transportation is of interest, rather than the elasticity of demand for transportation in general. Differences in intermodal competition among goods and among markets will cause additional differences in the elasticity of demand confronting an individual transportation mode in the transport of a given good to a given market. Thus the first condition for successful price discrimination would appear to be achieved.
Identification of Elasticity Differences among Customers

Trucking firms appear to be capable of identifying differences in shippers' elasticities of demand for motor carrier transportation. This is reflected in the motor carriers' freight classification system, the National Motor Freight Classification (NMFC). The National Motor Freight Classification contains an elaborate scheme to divide various goods into categories which reflect both the costs of transporting these goods and the value of the service to the shipper. The existence of the NMFC indicates the motor carriers' success in identifying differences in shippers' elasticities of demand.

Prevention of Arbitrage

Under existing ICC regulation, motor carriers are generally able to prevent arbitrage among their customers. This is due in part to the carriers' ability in many circumstances to distinguish between goods by their physical characteristics. Arbitrage is further hindered by the ICC's freight classification powers. These powers give the ICC the authority to decide the classification of any type of good. Armed with these powers, the ICC can intervene to ensure that motor carriers do not play fast and loose with the classification of a good or shipment as a means of competing with one another on price.

If the ICC did not have these powers, the carriers would find it more difficult to prevent arbitrage among customers. For example, suppose the transportation rate for shipping refrigerator parts is higher than the rate for transporting miscellaneous electrical appliance parts. Shippers could add a few toaster oven doors to a shipment of refrigerator parts and claim the lower miscellaneous electrical appliance parts rate. Under certain market conditions, a carrier might be willing to accept this circumvention of the freight classification system as a means of retaining the business of an existing customer. Relatively few outbreaks of price competition via circumvention of the freight
classification system need occur before the whole system would be in danger of collapse. In fact, according to Moore (1972), the Congress gave the ICC freight classification powers in the Mann-Elkins Act of 1910 because railroads were engaging in this form of price competition which threatened to topple the entire pricing structure of the railroad industry at that time. Based upon the historical record, it would appear that the third condition necessary for successful price discrimination would not be met in the absence of ICC regulation.

**Market Power**

It would also appear that the fourth condition was met under pre-reform ICC regulation only because of the ICC's policies. Intermodal competition does exist for the transport of some goods. In numerous other cases, however, motor carriers as a group enjoy monopoly power.

There are two primary forms of intramodal competition within the trucking industry. Private trucking is the first type. A firm which supplies its own motor carrier transportation is engaging in private trucking. As long as the firm's primary business is not transportation, the firm need not obtain ICC permission to provide these services for itself. Companies for whom private carriage is a viable alternative possess a weapon with which to encourage for-hire carriers not to charge them discriminatorily high prices. Unfortunately for shippers, private carriage is not always an economical alternative. Typically, only large firms or firms whose volume of production is large enough to utilize fully the capacity of its trucking fleet are able to economically resort to private carriage.

The second type of intramodal competition of concern here involves competition among ICC-regulated carriers. It appears that ICC policy in the pre-reform era effectively reduced the extent of competition within the motor carrier industry. The ICC's entry policies were extremely restrictive, especially for
for entry into the general commodity, less than truckload business. Eliminating the threat of potential entrants would allow incumbent carriers to collude with one another on the setting of prices free from the fear that any excess profits they would generate would lure new entrants into their markets.

ICC pre-reform price setting policies further established the monopoly position of incumbent ICC-regulated carriers. Most motor carrier rates were proposed by motor carrier rate bureaus. As discussed above, the members of the rate bureau were able to confer with one another on the motor carrier rates to be charged for the shipment of goods in their particular region of the country. The ICC then monitored the rates of return that would be earned by the membership of the rate bureau to determine if the average rate of return earned by the members was reasonable. Historically, the ICC's definition of a reasonable rate of return was quite generous.

Until recent changes in its regulatory policies, the ICC's reliance on rate bureaus as a key element in the price setting process gave the rate bureaus significant power over prices in general. Carriers who attempted to price their services independently of the rate bureau's actions would find their rates protested by the rate bureau on the grounds that they were discriminatory or non-compensatory. The threat of incurring significant legal costs if one took an independent rate action oftentimes was sufficient to cause a maverick carrier to cease its independence pricing activity.[1]

However, it would appear that this monopoly power possessed by incumbent ICC regulated carriers in the pre-reform era was solely the result of regulation. In the absence of regulation the trucking industry would appear to be a textbook example of a competitive industry. Entry into an unregulated trucking industry should be easy. Capital requirements are low and well-established capital markets exist to finance purchases or leases of equipment and freight ter-
minals. Labor skill requirements are minimal and are possessed by hundreds of thousands of workers already in the labor force. Both labor and capital are mobile. Large numbers of firms already participate in the industry. Economies of scale do not appear very important in general and are nonexistent in major portions of the industry (Friedlaender and Spady, 1979). Because of this competitive structure of an unregulated motor carrier industry, carriers operating in an unregulated environment would not possess the market power necessary to implement successfully a price discrimination scheme.

In summary, the four conditions necessary for price discrimination existed under pre-reform ICC regulation. Only two of the conditions would be met in the absence of ICC regulation. Accordingly, it would appear that whatever price discrimination did exist under pre-reform ICC regulation would appear to be the result of ICC policies.
Section II

ICC Policy Towards Price Discrimination

The ICC does not normally take an active role in determining whether given motor carrier rates are discriminatory. It typically accepts as legal without comment or review those tariffs against which no shipper files a complaint regardless of whether the rates are discriminatory or not. Unless shippers actively participate in the regulatory process they may be victimized by discriminatory rates. However, as small businessmen often lack the resources and expertise possessed by large firms needed to intervene successfully in the regulatory process, this ICC policy ensures that small businesses are much more likely to suffer from adversely discriminatory rates than their larger colleagues.

Some evidence exists that price discrimination exists under ICC regulation. Josephine Olson (1972) examined the pricing policies of the Middle Atlantic Conference carriers in 1966. She concluded that these carriers engaged in extensive, systematic price discrimination by commodity type.

Anecdotal evidence of price discrimination by commodity type also exists. For example, John Snow (1977, p. 18) reported that the rate for shipping nylon hosiery was twice the rate for shipping cotton hosiery for similar routings and shipment sizes. Similarly, former Secretary of Transportation Adams (1979) noted that shipping a ton of ordinary labels from New York to Baltimore cost $81 at that time. The price for shipping a ton of embossed labels was $119. It is difficult to believe that the manufacturing process of embossing raised the motor carriers' costs by $38 per ton.

Discriminatory pricing among places and persons was also found by the Federation of Rocky Mountain States (FRMS) in the nine state area they surveyed. They discovered that businesses located in small towns oftentimes paid higher
transportation charges than large community shippers. This occurred because so-called "arbitrary" charges were used to calculate transportation rates to the area's small communities. For example, the rate for a truck shipment from Los Angeles to Colorado Springs was constructed by adding to the Los Angeles to Denver line haul charge an arbitrary Denver to Colorado Springs surcharge. This occurred even though "the carrier passes through Colorado Springs on his way to Denver (p. 126)." Numerous other examples of this form of long haul short haul price discrimination were reported by FRMS.

The FRMS also claimed that the ICC did not effectively protect shippers from personal price discrimination. As an example, it noted that arbitrary charges are imposed upon shipments to most industries in Golden, Colorado. However, several carriers eliminated these arbitrary charges from their tariffs for the largest industry located in Golden (p. 139).

None of this evidence proves conclusively that price discrimination exists in the motor carrier industry. Alternative explanations can be developed for the observed pricing patterns such that the observed pricing patterns do not yield *prima facie* cases of price discrimination.

The four DOT staff studies also provide some evidence of discriminatory behavior directed against small business. In several of the towns where both large and small businesses resided, the larger firms seem to receive better general commodity, less than truckload motor carrier service than the smaller firms. But again this finding does not produce a *prima facie* case of discrimination directed against small businesses. Larger firms may generate more traffic, which induces more carriers to call on the larger shippers more often. Thus they may be very satisfied with the regulated service they receive while smaller shippers are dissatisfied. One curious finding, not consistent with this argument, is that all shippers, including small businesses, uniformly
praised the services of United Parcel Service (UPS). UPS appears to be motivated to provide shippers of all sizes first class service. This raises the interesting question as to why this is not the case for the general commodity, less than truckload carriers.
Section III

Examination of Motor Carrier Tariffs for Evidence of Discrimination Directed against Small Business

One of the goals of this project is to develop new evidence addressing the extent of motor carrier price discrimination confronting small business. To examine this issue, a sample of tariff filings by various motor carrier rate bureaus were examined. The sampled tariffs include:

- Southern Motor Carrier Rate Conference
  - Routing Guide (ICC SMC 100-B)
  - Rules Tariff (ICC SMC 190-E)
  - Edible Goods Tariff (ICC SMC 105-C)
  - Cast Iron Pipe Tariff (ICC SMC 280-E)
  - East-South Textile Products Tariff (ICC SMC 233-C)
  - Furniture Tariff (ICC SMC 237-E)

- Middle Atlantic Conference
  - Fertilizer Tariff (ICC MAC 227-A)

- East Central Motor Carriers Association
  - East Central Iron and Steel Articles Tariff (ICC ECA 229-F)
  - East Central Plastics Tariff (ICC ECA 246-U)

These tariffs were selected because they reflect commodities and geographic regions that are important for small business. While not selected in a random fashion, the patterns of the rate filings are such that it was not felt necessary to develop the sample in a more scientific manner.

It is difficult to obtain direct evidence of overt price discrimination directed against small business from examination of these tariff filings. There are, however, certain systematic patterns contained in these tariffs which could be construed as favoring larger firms. Evaluating whether the tariffs are in fact discriminatory is more difficult, as it is not easy to obtain information regarding systematic costs differences among the various shippers to be served by a given tariff.

Consider the case of pick-up allowances for shippers who are willing to deliver their goods to be shipped to the carrier's loading dock themselves. A typical pattern is for the tariff to grant the shipper an allowance of x cents
per hundred pounds for goods he delivers to the loading dock. Often there is a ceiling placed on the maximum allowance permitted. Such allowances are available to all shippers willing to provide their own "pick-up" service. There may be some biases in such arrangements. For example, larger shippers may have sufficient economies of scale vis-a-vis smaller firms that larger firms are more likely to take advantage of the pickup allowances. Alternatively, labor costs may be lower for smaller businesses, thus encouraging them to participate in self-pickup more than larger firms. However, as long as the allowances merely reflect the costs foregone by the carrier when shippers provide the pickup services, the allowances are not discriminatory regardless of the size distribution of shippers who find it worth their while to provide their own pickup service.

In general, these tariffs (e.g. Item 315, Item 315-20 of Tariff ICC SMC 190-E) do not discriminate among shippers on the pickup and delivery allowances granted to the shipper for providing its own pickup or delivery service. However, in some instances, tariffs contain arrangements which have potential discriminatory effects. This is the case in Item 315-180 of Tariff ICC-SMC 190-E. For 23 named commodities, shippers who deliver five or more articles on a given day to the carrier's dock in Baltimore, Maryland will be granted an allowance of 25 cents per hundredweight up to a maximum of $12.50. The five or more articles restriction seems to be discriminatory. There would appear to be little incremental unit cost savings to be gained by the carrier from dealing with shippers who deliver five or more articles at the carrier's dock relative to those who deliver fewer articles.[2] To the extent that smaller businesses would find it harder than larger firms to surpass the five article restriction, the tariff can be deemed to contain features that appear to discriminate against small business.
Other instances of potential discrimination arise in tariffs dealing with loading allowances. These tariffs concern shippers who load their goods onto the carrier's trailers at their own loading docks. These tariffs call for the carrier to spot a trailer at the shipper's loading dock. The shipper is then able to load the trailer at his own facility at his convenience. These arrangements provide obvious cost advantages to the trucker. They increase the productivity of the carrier's highly-paid drivers by shifting the loading task to the shipper's (presumably) lower paid workers. However, these savings could be wiped out if, by spotting its trailers at its shippers' docks, the carrier incurred higher capital costs. The carrier would like to place provisions in the tariff which give the shippers incentives to utilize fully the capacity of the trailers and to load the trailers quickly, thus minimizing the carrier's capital costs.

The tariffs of the Southern Motor Rate Conference contain two different types of provisions which accomplish these tasks. The first type is contained in Items 315-120, 315-140, and 315-160 of Tariff ICC SMC-190E. These items call for loading allowances to be granted shippers who load at least 10,000 pounds of LTL freight in one day in trailers spotted in the shipper's loading docks. The 10,000 pound requirement guarantees the carrier a minimum level of utilization of its equipment. The daily requirement increases the incentive for the shipper to load the trailer quickly and turn it over to the trucker.

A second type of provision designed to accomplish the same tasks is found in Items 315-40 and 315-1880 of the same tariff. These items provide for the spotting by a carrier of one of its trailers at the shipper's dock. The loading allowance granted the shipper varies by the weight of the goods loaded. The shipper is eligible for the loading allowances reported in Table 1.
Table 1

Loading Allowances Published in Items 315-40 and 315-1880 of Tariff ICC SMC 190-E

<table>
<thead>
<tr>
<th>Aggregate Weight</th>
<th>Loading Allowance</th>
</tr>
</thead>
<tbody>
<tr>
<td>5,000 lbs. to 9,999 lbs.</td>
<td>8 cents per hundredweight</td>
</tr>
<tr>
<td>10,000 lbs. to 19,999 lbs.</td>
<td>12 cents per hundredweight</td>
</tr>
<tr>
<td>20,000 lbs. to 29,999 lbs.</td>
<td>15 cents per hundredweight</td>
</tr>
<tr>
<td>30,000 lbs. and over</td>
<td>20 cents per hundredweight</td>
</tr>
</tbody>
</table>
There is little doubt that such allowances favor larger firms or firms whose business produces large amounts of freight. While larger firms are more likely to utilize these allowances than small firms, the mere existence of the allowances is not discriminatory per se. A priori, no proof exists that the loading allowances do anything more than reflect cost savings accruing to the carrier if the shipper provides loading service at its own docks.

However, it would appear that one of the two types of loading allowances must be discriminatory. To see this, we begin by assuming that the motor carriers' prices if the carriers do the loading is nondiscriminatory. By spotting the trailer at the shipper's dock and allowing the shipper to do the loading, the carrier saves the costs he would incur if he loaded the trailer himself. These costs are presumably a function of shipment size—either weight or number of parcels or some combination thereof. The carrier will incur some increased capital costs if the shipper loads the trailer more slowly than the carrier would. Since these capital costs are a function of time and not how fully loaded the trailer is, the net cost savings[3] to the carrier per day can be depicted as a linear function of shipment size as is done in Figure 2.

Under the first type of loading allowance scheme, the allowance for shipper loading of the trailer is depicted by the line of xxx's in Figure 2. The shipper receives no allowances for loading 9,999 pounds or less. For shipments over 10,000 pounds, he receives $x cents per pound.

The second kind of allowance (e.g., that contained in Items 315-40 and 315-1880 or in Table 1) is depicted in Figure 2 by the line of 000's. The carrier receives no allowance for shipments of up to 4,999 pounds. A shipment of 5,000 pounds provides the shipper with an allowance of $4.

Note that in Figure 2 the cost savings curve, the Type 1 allowance curve, and the Type 2 allowance curve are not drawn to scale. Nonetheless, it seems
Figure 2

Net Carrier Cost Savings

$0$ $5,000$ $10,000$

Shipment Size in Pounds

Loading Allowance
Type 1 - xxxx
Type 2 - ooooo
clear that at least one of the loading allowance schemes must be viewed as dis-

criminatory if the structure of loading costs are similar among interstate car-

riers. If Type 1 allowances are nondiscriminatory, then Type 2 must be discri-
m inatory. If Type 2 allowances are nondiscriminatory, then Type 1 must be dis-

criminatory.

If cost savings to the carrier are in fact a linear function of shipment size, then the two types of loading allowances may discriminate against small business in different ways. Type 1 discriminates against small business by im-
p osing the high minimum weight clause of 10,000 pounds. Once shippers surpass

this standard, no discrimination exists if carrier cost savings are linear.

Type 2 is initially more favorable to smaller shippers because of the lower min-

imum weight clause of 5,000 pounds. However, for shipments above 5,000 pounds,

Type 2 favors larger shippers because the per unit allowance rises with shipment

size. If carrier cost savings are linear, then the allowances given for ship-

ments above 5,000 pounds discriminate against smaller volume shippers.[4]

Tariff ICC SMC 100-B, the Southern Motor Carriers Rate Conference routing
guide, contains several examples of tariff provisions that may disfavor small

businesses. Items 125 through 140 of this tariff concern various rules imposed

by motor carrier participants in the establishment of joint rates. The first

type of restriction involves carriers who refuse to handle traffic from connect-

ing lines when the carrier could have handled some other part of the movement

besides the part it actually handled. This provision would appear to bear quite

heavily on those with little market power such as small businesses. A second

type of restriction involves carriers refusing to participate in traffic that

involves more than two carriers. It is highly likely that this provision bears

heavily upon businessmen in smaller communities and upon shippers whose traffic

is not so desirable as to encourage a carrier to provide it door-to-door ser-
vice. Small businessmen are likely to be affected disproportionately in both these circumstances.

The major possibility for discrimination exists in a more subtle form. It stems from differences in the kinds of goods that will be shipped via the two major forms of tariffs, class tariffs and commodity tariffs.

Under the class rate system, each commodity is assigned a specific index number. The rate for shipping good x from point A to point B is found by looking up the index number for good x. The distance from A to B is then calculated. The rate for shipping the goods of that index number for that distance is found by examining the relevant entry in a table of class rates classified by distance and index number.

The advantages of the class rate system are several. First of all, all goods can be assigned to a finite number of index numbers. Second, the system, by concentrating on the mileages involved, compresses the infinite number of various city-pair combinations into a more manageable number. Thus the class rate system allows the publication of relatively few rates to represent all the possible commodity and city-pair combinations.

There are disadvantages to the system, however. In particular, the system is rather inflexible and fails to account for individual differences in the costs of providing a given trucking service and the competitive conditions facing firms providing a given service. As a result, the carriers developed the commodity rate system. Under the commodity rate system, for particular movements of goods the carriers will publish a rate for the movement of a given good from city A to city B. The publication of these individualized rates allows the carriers to tailor rates to the requirements of individual markets. Of course, publication of individual rates can be costly and can lead to some confusion.
In a subtle fashion, the utilization of commodity rates can lead to potential biases against small business. Commodity rates are normally lower than class rates. Accordingly, the ability to secure commodity rates confers an advantage on firms able to use them.

Most commodity rates are initiated and published as a result of negotiations between a shipper and a carrier. Shippers are typically able to extract these rate concessions only if they can effectively threaten the carrier with loss of business if they fail to agree to the price reduction. It is highly likely that larger firms, especially those who ship large quantities of goods, will be the most likely to possess the negotiating power necessary to convince carriers to publish commodity rates for the shipment of their goods. Thus larger firms are more likely to have better access to these favorable rates.
Section IV
The Impact of Regulatory Reform

It appears that current ICC regulation does allow motor carriers to discriminate against small business shippers to some extent. Any price discrimination which does occur is attributable to ICC regulation per se. While the four conditions necessary for successful price discrimination are met under historical ICC regulation, two of the four would not be met in the absence of ICC regulation. As a result, price discrimination should not be viable in a deregulated environment.

Evidence, while not extensive, does exist that motor carriers operating in an environment of unregulated competition will be unable to practice discrimination against small shippers. In one study of note, L.A. Hoffman et al. (1975) examined the provision of trucking services to livestock handlers and feedlot operators. This work is of interest because the services are provided by exempt trucking firms, free from ICC regulation, and because the size of the shippers varies dramatically. Ninety-five percent of the shippers handle less than a million dollars worth of business annually, but several hundred earn revenues of more than ten million dollars per year. Surprisingly, small shippers experienced less difficulty in securing livestock hauling services than the large shippers, even during the peak season (p. 13 f.) Shippers were generally pleased with the unregulated for-hire services they received; 86 percent of the livestock haulers and 92 percent of the feedlot operators reported their transportation service satisfactory (see Table 2). These percentages did not vary widely by size of shipper.[5]

Another study that bears on the problem at hand is that performed by the ICC assessing the initial impact of total deregulation of intrastate trucking in
### Livestock Handlers' Level of Service Satisfaction by Size, 1972 (in per cent)

<table>
<thead>
<tr>
<th>Firm size by annual gross revenue, 1971 (million dollars)</th>
<th>Level of satisfaction</th>
<th>Did not answer</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Satisfactory : Unsatisfactory :</td>
<td>Did not answer</td>
</tr>
<tr>
<td></td>
<td>90% : 0% : 10%</td>
<td>7</td>
</tr>
<tr>
<td>20.0 or more</td>
<td>93 : 0 : 7</td>
<td></td>
</tr>
<tr>
<td>10.0-19.9</td>
<td>76 : 14 : 10</td>
<td></td>
</tr>
<tr>
<td>5.0-9.9</td>
<td>89 : 5 : 9</td>
<td></td>
</tr>
<tr>
<td>2.0-4.9</td>
<td>87 : 4 : 9</td>
<td></td>
</tr>
<tr>
<td>1.0-1.9</td>
<td>85 : 4 : 11</td>
<td></td>
</tr>
<tr>
<td>Less than 1.0</td>
<td>86 : 4 : 10</td>
<td></td>
</tr>
<tr>
<td>All handlers</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Feedlot Operators' Level of Service Satisfaction by Size, 1972 (in percent)

<table>
<thead>
<tr>
<th>Feedlot size capacity (in head)</th>
<th>Level of satisfaction</th>
<th>Did not answer</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Satisfactory : Unsatisfactory :</td>
<td>Did not answer</td>
</tr>
<tr>
<td>32,000 or more</td>
<td>91% : 7% : 2%</td>
<td></td>
</tr>
<tr>
<td>16,000-31,999</td>
<td>94 : 6 : 0</td>
<td></td>
</tr>
<tr>
<td>8,000-15,999</td>
<td>100 : 0 : 0</td>
<td></td>
</tr>
<tr>
<td>4,000-7,999</td>
<td>100 : 0 : 0</td>
<td></td>
</tr>
<tr>
<td>1,000-3,999</td>
<td>94 : 1 : 5</td>
<td></td>
</tr>
<tr>
<td>Under 1,000</td>
<td>92 : 1/ : 8</td>
<td></td>
</tr>
<tr>
<td>All feedlots</td>
<td>92 : 1/ : 8</td>
<td></td>
</tr>
</tbody>
</table>

1/ 0.1 per cent.

Florida. As a result of provisions in Florida's sunset law, the Florida Public Service Commission's regulatory jurisdiction over intrastate motor carriage terminated on July 1, 1980. Motor carriers have been free after this date to provide trucking service in any markets and at any price they choose.

The impact of Florida's total deregulation on intrastate motor carrier rates has been dramatic. The ICC (1981a) study concluded it is clear tariffs are being published and distributed at reasonable cost. Alternatives to traditional class rate structures, which are simpler and may be more cost-based, are being offered (pp. 3f.)

Florida intrastate carriers have been experimenting with a variety of innovative rates. For example, in order to overcome a traffic imbalance problem, Gator Freightways provides a 3 1/2 percent discount on all LTL freight and a 8 1/2 percent discount on TL freight northbound from three Miami-area counties. This peak-load pricing approach will lead to a more rational allocation of motor carrier resources.

Gator also discounts all LTL traffic weighing 5,000 pounds or more. The tariff is designed to encourage shippers to pool their shipments to achieve the lower rate as a means of lowering Gator's pickup and delivery costs. This move to a more cost-based system is consistent with our predictions regarding the inability of truckers to practice price discrimination in an unregulated environment.

AAA Cooper has similarly developed tariff provisions that appear to be more cost based than the rates that predominated before deregulation in Florida. AAA Cooper charges a low price per hundredweight, but assesses a fixed charge of $15 per shipment of less than 5000 pounds when fewer than four shipments are tendered to the carrier; if four or more shipments of less than 5000 pounds are tendered, the fixed charge falls to $12 per shipment. This and other features of the AAA Cooper tariff provide incentives to a given shipper to pool its shipments, thus reducing AAA Cooper's pickup and delivery costs.
Bowman Transportation and Georgia Highway Express have developed tariffs which eliminate much of the alleged price discrimination ensuing from value of service pricing. Bowman publishes a freight-all-kinds rate, which disregards the allegedly discriminatory NMFC classification system in the establishing of rates.

Georgia Highway Express also developed a rate structure that by-passes the NMFC classification system. As described by the ICC study, for goods carrying a NMFC rating of 100 or less, Georgia Highway Express simply has a fixed charge per shipment, supplemented by a fixed charge per pound and a fixed charge per piece. These charges vary depending upon the geographic zone of origin and zone of destination, defined in a separate section of the tariff. These zones are comparable to UPS rate zones except a separate zonal system is defined for each of Georgia Highway Express's 5 major origin areas in the state.

In order to reduce its pickup and delivery costs, Georgia Highway Express also offers discounts if a shipper tenders four or more shipments at once.

The rate structure changes observed in Florida since the advent of intra-state regulation are consistent with our predictions that relaxing regulation will reduce the carriers' ability to practice price discrimination. In particular, the Florida experience suggests that carrier prices are becoming more cost-based, as our argument above would suggest.

It would seem that past ICC regulation has increased, rather than decreased, the extent of price discrimination in the trucking industry over the level that would be incurred in the absence of regulation. Moreover, this past regulation was biased against small business because larger firms are more likely than smaller firms to possess the knowledge and resources to protect themselves from adversely discriminatory prices.

The Motor Carrier Act of 1980 and other administrative reforms initiated by the ICC in recent years will make the motor carrier industry more competitive.
Entry into the industry will be easier. Moreover, because the Act weakens the power of the rate bureaus to influence prices, more price competition will occur among existing carriers. Thus, to the extent the Motor Carrier Act of 1980 increases competition in the motor carrier industry, small businesses in the nation are likely to benefit more than larger businesses from the reduction of price discrimination resulting from the passage of this legislation.
The goal of Chapter III was to examine the impact of ICC regulation and the relaxation of ICC regulation on the price discrimination faced by the nation's small businesses. The motivation for carriers engaging in price discrimination was discussed in Section I. ICC policies towards price discrimination were explored in Section II and existing literature on the subject reviewed. A sample of motor carrier tariffs were examined to determine if they contained provisions which discriminated against small businesses in Section III. Several tariffs did contain features which discriminate or have the potential to discriminate against small business. Probably the most important provision of the rate making process in this regard was found to be the commodity rate system. Commodity rates offer significant price advantages to users over class rates. Yet larger firms are likely to have easier access to commodity rates than do smaller firms. Accordingly, small business may be disadvantaged in a relative sense by this system. Section IV assessed the likely impact of regulatory reform on the price discrimination confronting the nation's small businesses.

In general, it was determined that pre-reform ICC regulation did not insulate small businesses from discriminatory practices of the regulated motor carrier industry. The ICC did not devote significant resources to guaranteeing that small businesses received nondiscriminatory services and prices from the motor carriers it regulated. Since there are strong theoretical arguments that suggest discrimination could not exist in the absence of regulation, it would appear to be the case that the nation's small businesses will not face increased discrimination as a result of the passage of the Motor Carrier Act of 1980.
Rather, the reverse would appear to be more likely: the nation's small businesses will face less motor carrier price and service discrimination with the advent of regulatory reform than they did on the pre-reform era.
FOOTNOTES

*Parts of this chapter are drawn from Pustay (1979) and Pustay and Frew (1980).

1. The ICC began to curb the powers of the rate bureaus in Ex Parte No. 297. The Motor Carrier Act also significantly restricts their powers to constrain price competition.

2. If such cost savings do exist, then tariffs which do not have this clause would discriminate against larger shippers.

3. I.e., the loading savings minus the capital costs.

4. Note that the extent of the favoritism is larger than a quick reading of Table 1 might suggest. For example, the loading allowance for a shipment of 16,000 pounds would be $19.20; for a shipment twice as large (32,000 pounds) the allowance would be $64.00. Thus the allowance for the additional 16,000 pounds would be 28 cents per hundred weight. The incremental allowance for increasing one's shipment from 29,000 pounds to 31,000 pounds would be 92.5 cents per hundred weight.

5. While this evidence technically refers to service discrimination, rather than price discrimination, from a theoretical perspective price and quality of service discrimination are the same. A shipper obtains a favorably discriminatory price whether it receives higher quality service than the norm at the market price or normal quality service at a price below the market price. Thus this evidence is relevant for the problem being addressed.
Chapter IV
ICC Regulation and the Access of Small Business to Interstate Contract Carriage

Contract carriage provides an important alternative to the use of common carrier truckers for the shipment of many goods. Firms not wishing to rely on the services of common carriers and not wishing to resort to private carriage may find the service provided by contract carriers to be appropriate to their needs. In these circumstances, a firm would normally sign a contract with a contract carrier which would outline the duties and responsibilities of both parties to the agreement. In most situations, the contract provides for a minimum level of traffic to be tendered by the shipper, the price to be paid for the service, and the levels and quality of service to be provided by the carrier.

It has been argued that ICC policies in the pre-reform era restricted the availability of carriers able to provide contract carrier services. The legal requirements for obtaining a permit to provide contract carrier service were nominally easier than those for obtaining ICC permission to provide common carrier service: the applicant need only demonstrate that he is fit, willing, and able to provide the service and that the service will be consistent with the public interest.[1] Despite the easier legal requirement, empirical research conducted by Moore (1972) suggests that in practice the ICC's entry policies were not any easier for contract carriage than for common carriage.[2]

This policy of restricting entry into the contract carrier industry was compounded by ICC policies restricting the number of shippers an individual contract carrier could service. Until 1979, ICC-regulated contract carriers were generally limited in the number of shippers they could serve. The ICC-mandated ceiling was normally eight shippers. This "rule of eight" was imposed by the ICC in order to maintain a clear distinction between contract carriage
and common carriage: if contract carriers could transport goods for an infinite number of shippers, then little difference between contract carriage and common carriage would exist. [3]

Some observers have argued that the rule of eight unfairly disadvantaged small businesses in their attempt to secure the services of contract carriers. The argument often made was that contract carriers, knowing that the number of shippers they might haul for was limited, would allocate the eight "slots" to those shippers who would be the most profitable to serve. Assuming that small business would tend to generate less traffic on average than larger firms, it was claimed that contract carriers would be less willing to allocate one of their valuable eight slots to a small business than they would for a larger firm. Accordingly, it was argued that the ICC's policy towards contract carriage was biased against the interests of the nation's small business.

Others disputed these assertions. They claimed that small businesses did not enjoy the services of contract carriers to the extent that larger firms did only because providing contract carriage for smaller businesses was not profitable for the carriers. They also noted the requirements for entry into the contract carrier industry appear to have been relaxed since Moore's study was conducted (see Pustay, 1981). Accordingly, they claimed that entrepreneurs would be willing to start new companies to provide small businesses with contract motor carrier service if in fact such services were profitable to provide. Thus they assert that whatever level of contract carrier service is actually provided small businesses is the economically-efficient level of such services to provide these firms.

In summary, strong and conflicting beliefs exist regarding the role of pre-reform ICC regulation in allowing small businesses to have access to the services of contract motor carriers. In the remainder of this chapter we will attempt to resolve this debate empirically.
Section I
Development of the Sample

To address this debate, evidence was obtained from ICC records involving the transfer of motor carrier operating rights from one trucker to another. Motor carriers often buy or sell these operating rights for a variety of reasons—death or ill-health of the owner, financial problems, or for route structure reasons. Sales prices for these rights have varied from nominal amounts to several millions of dollars.

In order to transfer the rights legally, motor carriers must first obtain the ICC's permission to do so. The ICC usually agrees to the transfer of the operating rights (1) if the rights are not dormant and (2) if the transfer is not likely to significantly increase competition in the market(s) in question [4]. However, the ICC does require both the buying and selling carriers to submit information to it about the extent and financial health of their existing trucking operations. In particular, the ICC requires both the buyer and seller to report and inventory all other operating rights that they possess.

From a sample of such operating rights transfer petitions filed before the ICC in the possession of the author that occurred between 1971 and 1978, a randomly-selected subsample of these transfer petitions was assembled. These petitions were examined to determine if either the buying trucker or the selling trucker conducted any contract carrier operations. If either or both carriers did, the relevant rights and information in the transfer petition were examined further to determine if a complete listing of all shippers served in the trucker's contract carrier operations could be made. If so, that trucker and his operations were entered into the sample. A total of 81 truckers met these criteria and were included in this sample. That is, for 81 carriers a complete listing of their contract carrier operations including the names of the shippers they served was available from their operating rights transfer petitions filed before the ICC.
Section II
Analysis of the Data

The primary question to be considered is the effect of ICC regulation on the ability of small businesses to secure the services of contract carriers. This question will be addressed using data obtained from the operating rights transfer petitions discussed in Section I.

As reported above, one argument frequently made was that the rule of eight would induce contract carriers to allocate the eight slots to those shippers who would be the most profitable to conduct business with. It was claimed that this policy thus would be biased in favor of larger shippers and against small shippers.

One way of determining the validity of this argument is to assess the number of shippers with whom contract carriers have signed contracts. If most carriers are close to using up their quota of eight contracts, then the rule of eight would appear to be a binding constraint on the carriers. Under such circumstances, one might expect small businesses to be foreclosed from obtaining the services of contract carriers.

However, the evidence gathered from the transfer petitions suggests this is not the case. Table I reports the frequency distribution of the number of shippers with whom the sampled contract carriers have signed contracts. Sixty-seven percent of the sampled carriers have contracted with but one or two shippers. Only twenty-one percent of the carriers have used more than half of their allotted eight slots. This evidence does not prove conclusively that small businesses are not excluded from obtaining contract carriage—an opportunity cost still exists from the carrier's perspective if it signs a contract with a small businessman. However, it is fair to conclude that the evidence contained in Table I does not support the assertion that the ICC's rule of eight excluded small businesses from obtaining the services of contract carriers.
Table 1

Number of Shippers with whom a Contract Carrier has signed Contracts

<table>
<thead>
<tr>
<th>Number of Shippers</th>
<th>Number of Contract Carriers Signing with this Number of Shippers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>33</td>
</tr>
<tr>
<td>2</td>
<td>21</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>7</td>
<td>1</td>
</tr>
<tr>
<td>8</td>
<td>4</td>
</tr>
<tr>
<td>9</td>
<td>1</td>
</tr>
<tr>
<td>10</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>81</td>
</tr>
</tbody>
</table>

Source: Author's calculations.
The reason for these surprising results may be that the ICC restrictions against contract carriage were more pro forma than substantive. Two ICC policies in particular suggest this. First, the ICC had a policy discouraging dual operations. That is, the ICC discouraged carriers from possessing both common carrier and contract carrier operating rights. Accordingly, if a common carrier purchased a contract carrier operating right from another carrier, the ICC would look favorably on the carrier converting the right from a contract carrier right to a common carrier right. ICC entry policy also accommodated this policy. If a carrier applied for a right to serve a particular firm's plant site, the type of right it would be awarded would be a function of the kind of carrier it was. If the carrier were predominately a contract carrier, it would be awarded contract carrier rights. If the firm were predominately a common carrier, it would receive a common carrier right. These ICC policies in effect made common and contract rights interchangeable. Under these circumstances, there would appear to be little reason for carriers to believe that the rule of eight would be a binding constraint. If a contract carrier believed that it would sign contracts with eight shippers in the foreseeable future, the carrier could either establish a separate common carrier subsidiary to handle any new accounts that it could generate and/or petition the ICC to convert its existing contract carrier rights to common carrier rights. In this way it could evade the rule of eight.

Insights into the problem can also be gained by assessing the size distribution of shippers who have actually signed contracts with contract carriers. As Table 2 reports, 202 shippers who had signed contracts with the 81 contract carriers in our sample could be identified by commodity type. For each of these 202 shippers, we attempted to obtain the annual sales of the firm in the year 1978. However, many of the named shippers were subsidiaries of another corporation. Oftentimes the sales of the named shipper were not available, although
Table 2

Size Distribution of Shippers with Contracts with Sampled Contract Carriers, by Commodity Type

<table>
<thead>
<tr>
<th>Commodity Type</th>
<th>Annual Sales of Shipper (in Millions of Dollars)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Greater than $1,000</td>
</tr>
<tr>
<td>Foodstuffs</td>
<td>14</td>
</tr>
<tr>
<td>Textiles</td>
<td>2</td>
</tr>
<tr>
<td>Building Materials</td>
<td>4</td>
</tr>
<tr>
<td>Furniture</td>
<td>0</td>
</tr>
<tr>
<td>Paper Products</td>
<td>6</td>
</tr>
<tr>
<td>Chemicals and Petroleum</td>
<td>16</td>
</tr>
<tr>
<td>Primary Metal</td>
<td>0</td>
</tr>
<tr>
<td>Fabricated Metal</td>
<td>7</td>
</tr>
<tr>
<td>Machinery</td>
<td>4</td>
</tr>
<tr>
<td>Retail Stores</td>
<td>8</td>
</tr>
<tr>
<td>Grocery Stores</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>68</td>
</tr>
</tbody>
</table>

N.B. There is a discrepancy in the totals between Tables 1 and 2 because (1) five shippers could not be identified by size or commodity type and were dropped from Table 2 and (2) transferred operating rights were included in both the buying and selling carrier's totals in Table 1 but not in Table 2.

Source: Author's calculations.
the sales of the shipper's parent corporation were. Accordingly, we attempted to secure sales data for the parent corporation of the firm who had signed a contract with the contract carrier in our sample. As Table 2 reports, we were able to obtain information for 171 of 202 listed shippers, or 85 percent. These data were collected from a variety of standard references sources—Moody's, Standard and Poor's, Who Owns Who, etc.

It would appear that larger firms—defined as those with annual sales in excess of $100 million—are very well represented among the shippers included in Table 2. One hundred eighteen, or 58 percent, of the named shippers have sales of over $100 million annually. Only 10 of the shippers signing contracts with the sampled motor carriers had 1978 sales of less than $5 million, and which, accordingly to one commonly used definition, would thus qualify as small businesses. We were unable to obtain information on the size of 31 of the shippers dealt with by the sampled carriers. As the sources utilized would be more likely to have more complete information on larger firms (e.g., one source listed the 30,000 largest U.S. corporations), it is highly likely that most, if not all, of these 31 shippers are very small.[5] Thus, in subsequently analyses, we will presume that all of these 31 shippers belong in the smallest size category, annual sales of less than $1 million.

Given this assumption, at most 41 of the 202 shippers, or only 20 percent, would qualify as small businesses if a definition of a small business as a firm with annual sales of less than $5 million is used. This is a small percentage of contracts relative to the total number of small businesses in the nation; relative to the amount of the gross business product contributed by small business (48 percent), this share of small business contracts with contract carriers is disproportionately small.[6]
The majority of these small business contracts with contract carriers are concentrated with two industries, foodstuffs and building materials. These two commodity groups account for 61 percent of the small business contracts listed in Table 2 but only 39 percent of the total contract carrier contracts. Both commodity groups are characterized by low value to weight ratios, by bulkiness, and by relatively large volumes of the goods needed to be shipped to even relatively small producers of the goods. Consider lumber and canned peaches as examples of these two commodity groups. Relative to machinery or high quality clothing, the value per hundred weight of lumber and canned peaches is relatively low. Transportation costs represent a relatively high proportion of the total costs of production and distribution. As a result, the elasticity of demand for transportation of these goods will be high _ceteris paribus_ (see Friedlaender, 1969) and shippers of these goods will be relatively price sensitive. This raises the attractiveness of contract carriage. The bulkiness of these goods and their low value to weight ratios also implies that for a given dollar volume of sales a producer of these goods will require more transportation services in physical terms than an average producer of other goods would need for the same annual dollar volume of output. Hence it is not surprising that the small businesses obtaining contract carrier services are concentrated in these two commodity groups.

Overall, it appears that larger firms (i.e., those with sales in excess of $10 million) sign the overwhelming majority of the contracts with the contract carriers in our sample. This pattern does not provide a _prima facie_ case of discrimination against small business in the signing of such contracts, however. It may be that the transportation needs of small businesses in most industries do not provide the volume of traffic necessary to utilize the services of a contract carrier.
Some insights into the question of whether the numbers reported in Tables 1 and 2 are the result of discrimination against small businesses or the result of differing transportation needs of small versus large businesses can be obtained by cross-sectionally comparing the effects of the regulations of other regulatory agencies on the ability of small businesses to obtain the services of contract carriers. The states of Ohio and Texas were chosen to serve as the comparison jurisdictions.[7]

No "rule of eight" or similar restriction confronts contract carriers in Ohio. A "rule of five" exists in Texas; and, as mentioned above, a rule of eight existed on the federal level until 1979. If in fact the rule of eight on the federal level discriminated against small businesses, then one might expect the "rule of five" in Texas to be even more biased against small businesses, while no bias would exist in Ohio. Accordingly, one would expect to observe that the percentage of contracts contract carrier signed with small businesses would be highest in Ohio and lowest in Texas if the discrimination argument holds true.

Tables 3 and 4 present information on the size distribution of shippers signing contracts with randomly sampled intrastate contract carriers regulated by the Public Utilities Commission of Ohio (PUCO) and with intrastate contract carriers regulated by the Railroad Commission of Texas (RCT), respectively.

In Ohio, 33 of the 94 sampled contract carriers' contracts, or 35 percent, involved small businesses. In Texas, 29 of 108, or 27 percent, of the contract carriers' contracts were signed with small businesses. As mentioned above, only 20 percent of the ICC-regulated contract carrier contracts were with small businesses.

These findings are inconsistent with the discrimination argument. In the most restrictive jurisdiction, Texas, where the "rule of five" prevailed, a
Table 3
Size Distribution of Shippers with Contracts with Sampled PUCO-Certificated Contract Carriers, by Commodity Type

<table>
<thead>
<tr>
<th>Commodity Type</th>
<th>Greater than $1,000</th>
<th>$100-999.9</th>
<th>$10-99.9</th>
<th>$5.0-9.9</th>
<th>$1.0-4.9</th>
<th>$0-.9</th>
<th>Unknown</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foodstuffs</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>9</td>
</tr>
<tr>
<td>Textiles</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Building Materials</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>6</td>
<td>17</td>
</tr>
<tr>
<td>Furniture</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Paper Products</td>
<td>5</td>
<td>1</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>8</td>
</tr>
<tr>
<td>Chemicals and Petroleum</td>
<td>6</td>
<td>5</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>13</td>
</tr>
<tr>
<td>Primary Metal</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Fabricated Metal</td>
<td>1</td>
<td>2</td>
<td>4</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>13</td>
</tr>
<tr>
<td>Machinery</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Retail Sales</td>
<td>2</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Grocery Stores</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Valuables</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>13</td>
</tr>
<tr>
<td>Coal</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>23</strong></td>
<td><strong>17</strong></td>
<td><strong>14</strong></td>
<td><strong>7</strong></td>
<td><strong>3</strong></td>
<td><strong>3</strong></td>
<td><strong>27</strong></td>
<td><strong>96</strong></td>
</tr>
</tbody>
</table>
Table 4
Size Distribution of Shippers with Contracts with Sampled RCT-Certificated Contract Carriers, by Commodity Type

<table>
<thead>
<tr>
<th>Annual Sales of Shipper (in Millions of Dollars)</th>
<th>Greater than $1,000</th>
<th>$100-999.9</th>
<th>$10-99.9</th>
<th>$5.0-9.9</th>
<th>$1.0-4.9</th>
<th>$0-.9</th>
<th>Unknown</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foodstuffs</td>
<td>11</td>
<td>7</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>23</td>
</tr>
<tr>
<td>Textiles</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Building Materials</td>
<td>4</td>
<td>9</td>
<td>6</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>10</td>
<td>32</td>
</tr>
<tr>
<td>Furniture</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Paper Products</td>
<td>5</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>8</td>
</tr>
<tr>
<td>Chemicals and Petroleum</td>
<td>6</td>
<td>3</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>11</td>
<td>21</td>
</tr>
<tr>
<td>Primary Metal</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Fabricated Metal</td>
<td>5</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>8</td>
</tr>
<tr>
<td>Machinery</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Retail Stores</td>
<td>5</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>7</td>
</tr>
<tr>
<td>Grocery Stores</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>General Commodities</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>Coal</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>39</td>
<td>24</td>
<td>11</td>
<td>5</td>
<td>1</td>
<td>0</td>
<td>28</td>
<td>108</td>
</tr>
</tbody>
</table>
greater percentage of contracts were signed with small businesses than in the lesser restrictive jurisdiction, the United States, where the "rule of eight" prevailed. However, the findings are consistent with a "transportation needs" hypothesis: on average small shippers require short haul transportation to a greater extent than do larger firms. Under these circumstances, one would expect an inverse correlation between the physical size of the regulatory jurisdiction and the percentage of contracts signed by small shippers, which is what Tables 2, 3, and 4 report. Thus the pattern of small business contracting across the three regulatory agencies is consistent with the "transportation needs" hypothesis and inconsistent with the discrimination argument.
Section III
Conclusions

In this chapter we have attempted to identify the role of ICC regulation in allowing small businesses access to the services of contract carriers. Historically, ICC policy has been to restrict entry into the contract carrier portion of the motor carrier industry. After a carrier received permission to act as a contract carrier, the ICC restricted the carrier to serving a maximum of eight different shippers. Recent administrative and legislative regulatory reforms have substantially reduced the entry barriers into the industry and have eliminated the rule of eight, however.

Critics of pre-reform ICC regulation of the motor carrier industry have argued that this policy was biased against the interests of small business. These critics believe that the entry restrictions coupled with the rule of eight provided incentives for motor contract carriers to allocate their eight "slots" to those shippers who would be the most profitable to serve. It was alleged that these shippers would in most cases be the larger firms in the U.S. economy.

In this chapter we have attempted to develop new evidence to address these assertions. Data concerning contract carriers and the shippers they serviced were obtained from documents filed before the ICC by carriers wishing to transfer motor carrier operating rights from one trucker to another.

From these data, it appears that the rule of eight was not a binding constraint on most ICC-regulated interstate contract carriers. Only 21 percent of the contract carriers in the sample had signed contracts with five or more shippers. Thus the overwhelming majority of the sampled contract carriers did not appear to be effectively constrained, at least in the short-run, by the number of shippers with whom they would like to sign contracts for providing contract carrier service. Thus there should be little reason to expect that small busi-
nesses could not obtain contract carrier services.

Nonetheless, the evidence gathered from this source suggests that larger shippers sign the lion's share of the contracts that ICC regulated carriers actually sign. Seventy-nine percent of the contracts signed by the sampled carriers were with shippers whose annual sales exceeded $10 million; 58 percent of the contracts were with shippers whose annual sales exceeded $100 million.

Since 48 percent of the nation's gross business product is contributed by small business and 58 percent of the nation's private, non-agricultural work force is employed by small businesses [8], this share of contract carrier contracts is disproportionately small relative to the economic activity generated by small business, especially in light of small business' reliance on trucking for its transportation needs.

However, this relatively small share of the contract carrier contracts signed appears to be the result of some inherent characteristics of small business traffic--e.g., that most small businesses do not generate enough traffic to require the services of a contract carrier or that the length of haul of this traffic is such that small businesses need the services of truckers on relatively fewer interstate movements than do larger businesses.

In summary, we found no evidence to suggest that the ICC's pre-reform policies had the effect of discriminatorily foreclosing the access of small businesses to obtaining the services of ICC-regulated interstate motor contract carriers. On the other hand, we found no evidence to suggest that ICC policies in any way favored the nation's small businesses in this regard.
FOOTNOTES

1. To obtain a certificate of public convenience and necessity required to provide common carrier service, an applicant must demonstrate he is fit, willing, and able and that the service "is or will be required by the present or future public convenience and necessity." As Moore (1972, p. 28) has explained, this latter requirement has been interpreted to mean that the ICC "must consider the need for the service, the advantages to shippers if the certificate is granted, and the possible loss to other carriers from any loss in business resulting from the new carrier (p. 28)."

2. More recent work by Pustay (1981) using a different approach than Moore's suggests that obtaining a contract carrier permit is easier than obtaining a common carrier certificate of public convenience and necessity. As Pustay used a data set of a more recent vintage than Moore's, his results should not be interpreted as being in conflict with Moore's findings.


5. Some of the shippers may also have gone bankrupt or changed their names subsequent to the time in which they appeared in the ICC records we examined. Thus some may have been relatively large firms.


7. These figures for Ohio and Texas were obtained from a data set collected by the author under a research contract with the U.S. Department of Transportation, contract DTRS-5680-C-00006. These states were selected because of the relative ease of assembling the figures from the pre-collected data set.

Chapter V
Summary and Conclusions

In this research we have explored the impact of ICC regulation of the interstate motor carrier industry and recent reforms of ICC regulation on the small business community. Three areas of major concern to the nation's small businesses were examined in depth:

1. the provision of motor carrier service to small businesses located in small communities;
2. protection of small businessmen from the charging of discriminatory prices by ICC-regulated motor carriers;
3. the impact of regulation in ensuring that small businesses have equal access to the services of contract carriers.

Chapter II explored the role of ICC regulation in promoting service to small businessmen residing in small communities and examined the impact of regulatory reform on these services. From the analysis conducted in the chapter, three conclusions were drawn. First, pre-reform ICC regulation did not appear to play a role in encouraging motor carriers to provide service to small towns. The ICC employed no mechanisms to reward carriers who served such communities, nor did it direct any punitive measures against those carriers who failed to live up to their common carrier obligations to serve small communities. Second, small towns do receive ICC-regulated motor carrier service despite the absence of any ICC enforcement or incentive mechanisms to do so. Third, the overall level of trucking service to these communities appears to be adequate, though much of this service is derived from sources other than ICC-regulated general commodity LTL carriers. The overall conclusions to be drawn from these results is that whatever service is actually provided small businesses in small communities is the result of voluntary actions by the carriers. This finding strongly suggests
that these services are provided because the carriers in question find it profitable to do so. As regulatory reform should not alter the profitability of these services, these carriers should continue to provide service to small businessmen residing in small communities in the post-regulatory reform era. Studies analyzing the initial impact of reform report that this is in fact the case.

Chapter III discusses the impact of ICC regulation and regulatory reform on the extent of price discrimination faced by small businesses in the shipment of their goods. The chapter notes that the Motor Carrier Act of 1935 outlaws only undue, unjust, or unreasonable price discrimination, not price discrimination per se. As the Motor Carrier Act of 1980 makes no reference to price discrimination, this situation remains in effect in the post-reform era.

Evidence gathered for the study indicates that certain systematic biases against small businesses exist in the pricing tariffs sampled for this study. Biases against small businesses may also exist in the selective availability of commodity rates for the movement of certain goods but not for others.

Theoretical arguments are developed in Chapter III which conclude that in the absence of ICC regulation price discrimination would not be viable given the inherent competitive nature of the motor carrier industry. Thus any discrimination which does exist must be attributed to regulation per se. Accordingly, relaxing motor carrier regulation should not have any adverse effect on the level of price discrimination faced by small businesses. Carrier pricing behavior since the passage of the Act is consistent with these findings.

Chapter IV explores the impact of regulation and regulatory reform on the ability of small businesses to obtain the services of contract carriers. While it was alleged that pre-reform ICC regulation restricted the ability of small businesses to sign contracts with contract carriers for motor carrier service, the evidence gathered for this research did not support this assertion. How-
ever, it was found that small businesses signed a disproportionately small percentage of the sampled contract carrier contracts. This result was attributable to the inherent economic characteristics of small business traffic, rather than to any discriminatory treatment by motor carriers.

Our study of these three problem areas yields one overriding conclusion: ICC regulation has had very little positive impact on the motor carrier service offered to small businessmen. ICC regulation has had little effect in stimulating motor carrier service to small businesses located in small communities. Regulation has not prevented carriers from practicing price discrimination against small business. There is good reason to believe that in the absence of regulation motor carriers would be unable to practice any price discrimination whatsoever. Little evidence exists to support the assertion that regulation has prevented small businessmen from obtaining the services of contract carriers.

Given this absence of any positive impact of pre-reform ICC regulation on the motor carriage offered small business, there is little reason to believe that the administrative and legislative regulatory reforms that have occurred in the past few years will have any negative effect on small business. Rather, small businesses should benefit from the weakening of the carriers' ability to practice price discrimination ensuing from these reforms and from the general increase in motor carrier competition that these reforms will engender.
BIBLIOGRAPHY


