

## Entry Controls on Regulated Household Goods Carriers: The Question of Benefits

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## I. INTRODUCTION

Recent research on the theory of regulation has emphasized the economic-political nature of the regulatory process.<sup>1</sup> Similarly, the beneficiaries of regulation under varying conditions and assumptions have also been considered.<sup>2</sup> As two specific cases of this theoretical focus, the "consumer-protection" and "producer-protection" orientations identify two potential beneficiaries of regulation. At one extreme, the "public interest" or "consumer-protection hypothesis" purports that regulation benefits consumers by ensuring both high levels of service to the public and lower prices resulting from firm efficiencies. In contrast, the "capture" or "producer-protection hypothesis" predicts that regulation, and in particular, entry control, restrains competition, raises the prices of services, and allows firms to achieve monopoly gains. However, even some proponents of the "producer-protection hypothesis" concede that service performance to the public may be enhanced. This recognition stems from the contention that when rate competition is restricted, firms may compete away excess profits by offering excessive services.<sup>3</sup>

This paper will examine the beneficiaries and benefits of regulation for one particular segment of the motor carrier field, the household goods (HHG) moving industry.<sup>4</sup> Because of the importance of service performance in this market, the interstate HHG moving industry has been the most heavily regulated segment of the entire surface transportation arena.<sup>5</sup> In turn, service performance is particularly important in the HHG market because of certain demand characteristics relating to the personal and non-repetitive nature of the service, the high emotional value attached to shippers' personal belongings, the relatively uninformed status of many individual consumers, and the dispersed locations of shipment origins and destinations. In a sense, the importance of service performance and the heavy regulation of this industry provide a crucial test of the "consumer protection hypothesis."

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1. Stigler, *The Theory of Economic Regulation*, 2 BELL J. ECON. & MGMT. SCI. 3 (1971); Posner, *Theories of Economic Regulation*, 5 BELL J. ECON. & MGMT. SCI. 335 (1974); and Peltzman, *Toward a More General Theory of Regulation*, 19 J. L. & ECON. 211 (1976).

2. See, e.g., Jordan, *Producer Protection, Prior Market Structure and the Effects of Government Regulation*, 15 J. L. & ECON. 151 (1972); Moore, *The Beneficiaries of Trucking Regulation*, 21 J. L. & ECON. 327 (1978); and Olson & Trapani, *Who Has Benefited from Regulation of the Airline Industry?*, 24 J. L. & ECON. 75 (1981).

3. Breen, *The Monopoly Value of Household-Goods Carrier Operating Certificates*, 20 J. L. & ECON. 182 (1977); and Moore, *supra* note 2, at 330.

4. The market for HHG moving services is basically a distinct industry. For a discussion of this point, see G. WILSON, *ESSAYS ON SOME UNSETTLED QUESTIONS IN THE ECONOMICS OF TRANSPORTATION* 24-29 (1962); and B. CHOW, *THE ECONOMICS OF THE MOTOR FREIGHT INDUSTRIES* 43-46 (1978).

5. Rupert L. Murphy, *Household Goods — What is Our Approach?* (Sept. 30, 1977) (remarks of ICC Commissioner at the 34th Annual Convention of the American Movers' Conference).

The specific focus of this study was to empirically investigate the effects of regulatory entry controls on HHG firm size, operating efficiency, and the quality of carrier service performance. While prior empirical studies have investigated the effects of regulatory entry controls on carrier rate levels (see, for example, studies listed in notes 2 and 3), this study builds on previous research by emphasizing the relationships between entry controls and the quality of firm service output. Unfortunately, the Household Goods Transportation Act of 1980<sup>6</sup> did not deal with the basic structural issue of entry controls but rather focused on symptomatic concerns of consumers such as binding estimates and shipment weighing procedures.

Since entry barriers in the HHG moving industry generally take the form of restrictions on carrier certificates, a brief review of these HHG restrictions is warranted.

#### A. ENTRY CONTROLS — RESTRICTIONS ON CARRIER OPERATING AUTHORITIES

To provide services in a given transportation market, HHG carriers must obtain a "certificate of public convenience and necessity"<sup>7</sup> from the Interstate Commerce Commission, and the contemplated service must not be restricted by the authority. Presently, only twenty-seven carriers hold nationwide authority from the Interstate Commerce Commission to serve most points in the United States.<sup>8</sup> However, a number of these carriers can only provide "nationwide" service by tacking together numerous separate grants of authority.<sup>9</sup>

In the interstate HHG moving industry, there are three major features of HHG carrier certificates which make the authorities more or less restrictive in nature and which may, therefore, create barriers to carrier entry and market expansion. First, the number of states specified in the certificate either restricts the carrier to a limited market area or permits a wider scope of geographical operations. Generally, a broad grant of authority means that a carrier can serve many different states. Since the origins and destinations of household goods shipments tend to be geographically dispersed, a broader authority makes it possible for the carrier to enjoy both enlarged market areas and increased lengths of haul.

Secondly, the distinction between radial and non-radial operating au-

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6. Pub. L. No. 96-454, 94 Stat. 2011 (codified as amended in scattered sections of 49 U.S.C.).

7. This paper treats the terms certificates, operating authorities, and operating rights as synonymous.

8. See Morash, *Household Goods Agency Systems*, 19 *TRANSP. J.* 38 (1980). Strictly defined, a nationwide authority is an unrestricted, non-radial 48 state authority (continental U.S.). Under this strict definition, only 18 HHG carriers would qualify as nationwide carriers.

9. Specific permission for gateway eliminations may now be granted by the Interstate Commerce Commission. See *Gateway Elimination*, 119 *M.C.C.* 530 (1974); 49 U.S.C. § 10922(h) (Supp. V 1981).

thority also relates to the restrictiveness of carrier certificates. A radial type authority, being more restrictive in nature, requires that a carrier conduct operations between the base area (or hub) and the prescribed destination area. Thus, a radial authority is similar to a "bicycle wheel" where the hub is the base or origin area and where the wheel spokes emanate out from the hub to the destination area. For example, with Washington D.C. as the base and Maryland, Delaware, and Virginia as destination points, only movements between Washington, D.C. and points in Maryland, Delaware, or Virginia would be authorized. No "cross-hauling" would be permitted between the three named states nor within the base area. As a result, a radial type authority makes it more difficult for a carrier to consolidate shipments in the same vehicle for increased load factors.

In contrast, a non-radial authority is less restrictive in nature since it authorizes a carrier to operate between any points named in the certificate. For example, "between points in Maryland, Delaware, Virginia, and the District of Columbia" would allow cross-hauling between any of the named points without requiring operations through a base area. As the least restrictive type of operating authority, a non-radial nationwide certificate would state simply, "between points in the United States."

A third type of limitation for radial authority relates to the size of the base area. The base area for a radial authority can be as small as one town, or in some cases, as large as several states.<sup>10</sup> In essence, the smaller the base area, the more difficult it is to obtain return movements for increased average load factors, particularly since the destinations of HHG shipments tend to be dispersed. For example, a radial authority between Washington, D.C. and California would not authorize return movements from California to Maryland, Virginia, or any points in between (unless specifically mentioned in the certificate). Furthermore, if the authority specifies "from Washington, D.C. to California" instead of "between," no backhauls would be authorized in any event. This latter type of backhaul restriction is, however, gradually being removed as a result of both national concern over energy consumption and the Motor Carrier Act of 1980.<sup>11</sup>

In some cases, carriers can partially compensate for some of the preceding certificate restrictions by "tacking" together separate grants of authority. If authorized, this joining of different authorities would allow for increased carrier market areas, through movements, and improved shipment consolidation and backhaul opportunities.<sup>12</sup> However, "tacking" of

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10. In communications with I.C.C. legal staff, it was indicated that the early Commission intent was to refrain from issuing radial certificates with large base areas. However, some HHG carriers ended up with base areas of several states anyway. See also Breen, *supra* note 3, at 161.

11. 49 U.S.C. § 10922(h) (Supp. V 1981).

12. The average number of separate grants of authority held by an individual HHG carrier is 1.5 (total number of authorities divided by total number of carriers). See Breen, *supra* note 3, at

authorities must be at common points in the certificates and the involved certificates must contain no prohibition against "tacking." Furthermore, no "cross-hauling" in the base or destination areas of radial authorities is permitted. It is also noteworthy that in the aftermath of the HHG Act and the Motor Carrier Act of 1980, the three major types of restrictions discussed in this section are also consistent with the increased possibility of new entrants. Thus, these particular restrictions are almost invariably placed on carrier applications for new HHG operating authority.

## II. METHODOLOGY

The principal focus of this study is to identify the relationships between the restrictiveness of carrier certificates and firm size, operating efficiency, and service quality. The research approach involved three phases. First, an Interstate Commerce Commission listing was obtained of all 332 Class I and II carriers who were significant movers of HHG shipments.<sup>13</sup> Similarly, the HHG industry's 109 agency systems were identified from a second ICC listing. Although the agency systems represent only about one-third of all Class I and II HHG carriers, they account for over eighty percent of all industry shipments.<sup>14</sup> For the purposes of this study's analysis, these agency carriers were also broken down into small agency systems (less than seventy-five agents) and large agency systems (more than seventy-five agents). Thus, statistical comparisons could be made of the operating authority, size, operating efficiency, and service performance characteristics of carriers with no agents, small agency systems, and large agency systems.

The second research phase involved obtaining information on the restrictiveness of carriers' operating authorities. Since most interstate HHG carriers belong to one of two rate bureaus, this certificate information was obtained from the "Participating Carrier and Scope Tariffs" of the industry's two major rate bureaus — the Household Goods Carriers' bureau, and the Movers' and Warehousemen's Association of America. Of the complete universe of Class I and II HHG carriers (332), it was found that ninety-one percent (301) belonged to one or the other rate bureau. Thus, certificate information could be obtained for these carriers. The remaining in-

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161. By way of comparison, a general commodities carrier holds an average of 14 separate authorities. C. TAFF, *COMMERCIAL MOTOR TRANSPORTATION* 439 (1980). It would therefore appear that the tacking option is less feasible for most interstate HHG carriers when compared to general commodities carriers.

13. As of 1980, the I.C.C. has redefined Class I motor carriers as those with annual operating revenues over 5 million dollars, Class II carriers as those with revenues between 1 and 5 million dollars, and Class III carriers as those with annual revenues less than 1 million.

14. Morash, *supra* note 7, at 38.

dependents (nine percent) were found to be small localized or short-haul carriers.

In the third phase, measures of carrier service performance, financial performance, and operating efficiency were obtained from carrier reports on file at the Interstate Commerce Commission. The service performance measures are reflected by the "Annual Carrier Service Performance Reports" while financial and operating statistics appear in the "Carrier Annual Financial Reports." For the service and financial performance measures, two years of data were utilized to better indicate the strength of statistical relationships.

### III. FINDINGS: RESTRICTIVENESS OF OPERATING AUTHORITIES

#### A. FIRM SIZE AND CONCENTRATION TENDENCIES

A comparison was made of the operating authority characteristics of HHG carriers with no agents, carriers with less than seventy-five agents, and HHG agency systems with more than seventy-five agents. The major finding was that the less restrictive the operating authority, the larger the agency system. As Table 1 indicates, the larger agency systems with at least seventy-five agents have more states in their authority (an average of forty-five) and the authority tends to be non-radial (less-restricted). When their authority is radial, these same carriers have more average states (thirteen) in the hubs of all authorities held. However, only about one-fourth of these large agency systems hold predominantly radial authority (nine of the thirty-five in Table 1).

In contrast, for both carriers with no agents and smaller agency systems, almost eighty percent of the carriers hold primarily radial authority (157 of 201 and 50 of 65 respectively in Table 1). Furthermore, for carriers with no agents, the average size of the radial hubs is less than one state (.86, Table 1) while for small agency systems, the hubs average slightly less than two states (1.98).

The implications of these findings are several. First, the existence of an unrestricted grant of operating authority is a major impetus for carrier development of a large agency system. The reason for this impetus is simply that with the increased number of agents, carrier revenues are also increased. Thus, Table 1 shows that the average operating revenue of large agency systems with unrestricted operating authority is substantially above the average operating revenues of both carriers with no agents and small agency systems. Furthermore, the four largest agency systems in the U.S., all of which have nationwide, non-radial authority, account for approxi-

mately fifty percent of HHG industry revenues.<sup>15</sup>

A second implication of these results is that carriers with restricted or no interstate operating authority may have little alternative but to become agents for carriers with broad and less-restricted grants of authority. Simi-

TABLE 1  
CERTIFICATE RESTRICTIONS AND CARRIER SIZE BY TYPE OF HHG CARRIER

Variables <sup>a</sup>	Carriers with No Agents (0 Agents) (N=201) Mean	Small Agency Systems (Less than 75 agents) (N=65) Mean	Large Agency Systems (75 Agents or more) (N=35) Mean
A. <i>Restrictiveness of Operating Authority</i>			
1. Number of states in operating authority	11	24	45
2. Tendency to non-radial authority <sup>b</sup>	1.52	1.54	3.12
3. Number of states in all hubs if radial authority type carrier <sup>c</sup>	.86 (N=15.7)	1.98 (N=50)	13 (N=9)
B. <i>Carrier Size</i>			
1. Revenues — average carrier operating revenues in thousands	\$1,570	\$2,163	\$29,609

Sources: Movers' and Warehousemen's Association of America and Household Goods Carriers' Bureau *Participating Carrier and Scope Tariffs* with updating supplements; *Carrier Annual Financial Reports* (on file at I.C.C.).

- a. For all variables, the differences between means are statistically significant at the .01 level, which indicates that the odds are only one out of a 100 that the differences are due to chance.
- b. This variable was coded: (1) radial with additional restrictions; (2) radial with no additional restrictions; (3) non-radial restricted; and (4) non-radial with no restrictions, for the predominant type of carrier authority.
- c. A carrier may hold more than one radial authority.

larly, the more restrictive the operating rights, the more limited the market area and revenue generating capability of the carrier, and the greater the

15. E.A. Morash, *Household Goods Carrier Systems: Organizational Control of Member Agents and Owner-Operators* 33 (unpublished Ph.D. dissertation, University of Maryland, 1979).

incentive to become an agent.<sup>16</sup> It is also noteworthy that many of the non-agency carriers and small agency systems in Table 1 also serve as agents for the largest agency systems when they operate beyond the scope of their own operating authorities. Thus, as both a carrier and agent, they are termed "carrier-agents."<sup>17</sup> In this study, even a twenty-eight state carrier was found to serve as a carrier-agent for a fifty state carrier when the carrier-agent lacked the requisite operating rights.

While these industry conditions raise the revenue generating capabilities, and possibly the market shares of the larger agency systems, they also reduce the revenues and profits of both agents and carrier-agents. For example, for the privilege of using the principal carrier's certificate, the agent must pay a royalty of five-ten percent of the shipment revenues.<sup>18</sup> Furthermore, most agency contracts require that the agent "exclusively" represent the parent company. For carrier-agents, some principal carriers also require that they surrender or place in escrow their own certificates; this tendency has increased after enactment of the Motor Carrier Act and the Household Goods Act of 1980.<sup>19</sup> This latter requirement prevents the carrier-agent from using his or her own operating authority in those instances where it would be both legal and operationally feasible. In sum, these conditions are a major reason why at the time of enactment of the Household Goods Transportation Act of 1980, only about 1000 of the over 2500 certificated interstate HHG carriers were found to be conducting any operations at all with their own certificates.<sup>20</sup>

Thus, the regulatory market barriers created by restrictive operating authorities may foster the development of large HHG agency systems along with concomitant industry concentration. In particular, these artificial entry barriers may encourage nonrestricted carriers to develop agency systems and restricted carriers to join them. Whether this regulatory effect is a desirable result will be subsequently discussed.

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16. If a carrier's authority is not too restricted, interlining, or the transfer of shipments between carriers, provides a second, although less than ideal alternative. Interlining appears to be primarily a way to combine broad though somewhat restricted grants of authority. For example, in this study, 18 carriers who interlined significant amounts of tonnage (at least 1000 tons annually) were found to have an average of 31 states in their authority. However, their authority tended to be radial (1.67 or 14/18 carriers) with an average of five states in the hubs of all radial authorities held (compare with Table 1).

17. Practices of Motor Common Carriers of Household Goods (Agency Relationships), 115 M.C.C. 629 (1972).

18. *Id.* at 640.

19. *Id.* at 638. *Motor Carriers Take Advantage of Apparent ICC Policy Change*, TRAFFIC WORLD, Oct. 18, 1982, at 55.

20. H.R. REP. NO. 1372, 96th Cong., 2d Sess. 1, reprinted in 1980 U.S. CODE CONG. & AD. NEWS 4271, 4271.



## B. EFFICIENCY OF FIRM OPERATIONS

A number of economists have provided evidence that what "apparent" economies of scale exist in motor carrier operations relate primarily to the average length of haul and to improved load factors.<sup>21</sup> For HHG carriers in particular, Table 2 indicates that the large agency systems exhibit both significantly longer average lengths of haul and higher average load factors. Furthermore, the large agency systems achieve lower carrier operating ratios, a common measure of carrier financial health. A lower operating ratio reflects a lower percentage of operating expenses to operating revenues, and would also appear to reflect efficiencies in operations of the large agency systems.<sup>22</sup>

Table 2 also superimposes the restrictiveness of operating authorities on these results. Viewed in this light, the apparent operating efficiencies of the large agency systems may be directly related to regulation and the restrictiveness of operating rights. First, large agency systems with more states in their certificates are able to achieve longer average lengths of haul. Second, given the geographically dispersed nature of HHG shipments, carriers with non-radial authority are better able to consolidate shipments in the same vehicle for improved load factors. Third, a non-radial authority, or a radial authority with a large base area, increases the likelihood of return movements. Return movements would serve to increase average carrier load factors. In total, the broad and generally non-radial certificates of large agency systems facilitate their ability to concentrate on the desired lengths of haul, to consolidate shipments, to obtain balanced movements, and to provide through movements without interlining (shipment interchange with other carriers). In contrast, the narrow radial authorities of carriers with no agents and small agency systems limit their opportunities for economical operations and create another incentive for agency participation.

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21. Roberts, *Some Aspects of Motor Carrier Costs: Firm Size, Efficiency, and Financial Health*, 32 LAND ECON. 228 (1956); Nelson, *Motor Freight Transport for New England, A Report to the Governor's Conference* (Boston, Mass., October 1956); J. MEYER, M. PECK, J. STENASON & C. ZWICK, *THE ECONOMICS OF COMPETITION IN THE TRANSPORTATION INDUSTRIES 94-99* (1959); Warner, *Cost Models, Measurement Errors, and Economies of Scale in Trucking*, in *THE COST OF TRUCKING: ECONOMETRIC ANALYSIS 1* (1965); Friedlaender, *Hedonic Costs and Economies of Scale in the Regulated Trucking Industry*, in *MOTOR CARRIER REGULATION* (1978).

22. These results are even more pronounced if either "return on equity" or "return on total assets" is used as the measure of financial performance. For example, the average return on equity for the largest agency systems was found to be 32% which was substantially above the returns for other carrier groups. This is because most of the fixed-assets of the large agency systems are provided by both agents and carrier-agents, which reduces the principal carriers' fixed investment costs. Thus, with a lower investment base, relative carrier returns would also increase.

TABLE 2  
EFFICIENCY OF CARRIER OPERATIONS BY TYPE OF HHG CARRIER

<i>Variables<sup>a</sup></i>	Carriers with No Agents (N=201) Mean	Small Agency Systems (N=65) Mean	Large Agency Systems (N=35) Mean
A. <i>Restrictiveness of Operating Authority<sup>b</sup></i>			
1. Number of states in operating authority	11	24	45
2. Tendency to non- radial authority	1.52	1.54	3.12
3. Number of states in all hubs if radial authority type carrier	.86	1.98	13.0
B. <i>Efficiency of Carrier Operations</i>			
1. Average haul in miles	500	680	960
2. Average load in tons	3.3	4.2	4.6
3. Carrier operating ratio <sup>c</sup>	103.12	100.21	98.51

Sources: Movers' and Warehousemen's Association of America and Household Goods Carriers' Bureau *Participating Carrier and Scope Tariffs* with updating supplements; *Carrier Annual Financial Reports* (on file at I.C.C.).

- a. For all variables, the differences between means are statistically significant at the .01 level.
- b. Higher numbers are less-restricted.
- c. Carrier operating expenses as a percentage of gross revenues. Two-year carrier averages were utilized.

The apparent operating efficiencies of the large agency systems appear to be at least partly regulation induced rather than inherent in increased carrier size. Since these operating efficiencies are not available to carriers with restricted authorities, another incentive exists for these restricted carriers to join large agency systems. Again, the artificial regulatory barriers created by certificate restrictions may be a major impetus for industry reliance on large agency systems for shipment movements. While in specific instances there may be operational advantages associated with agency participation (e.g., traffic corridors of low density), the point here is that regulatory entry controls encourage agency involvement. The desirability of these conditions will be considered in a subsequent section of this paper.

C. *FIRM RISK*

Although the preceding revenue increasing capabilities and operating efficiencies of the large agency systems appear to be partly regulation induced, the question might be raised as to why these large agency systems with unrestricted operating certificates do not perform the actual tasks themselves. For example, a number of the largest carriers own virtually no equipment or warehouses and directly employ no drivers. It would seem that by relying on agents and owner-operators to provide the equipment, local offices, and warehouses, principal carriers with broad grants of authority would be foregoing increased revenue and return (profitability) possibilities. For example, Table 3 shows that the large agency systems forego packing and warehousing revenue and pay out a large percentage of the revenue dollar for agency fees and purchased transportation.

The answer to this paradox relates to carrier risk. Essentially, an agency system allows the carrier to both enjoy higher returns while at the same time reducing carrier risk. In addition, this risk reduction takes several forms:

1. Investment risk — By providing the fixed assets, agents assume the investment risk.
2. Financial risk — Since these fixed assets are usually financed partly by debt instruments, agents also assume the financial risk associated with increased leverage. In fact, an agency system can possibly be viewed as a means for increasing system leverage without attendant carrier financial risk.
3. Operating risk — By reducing the proportion of carrier fixed costs to variable costs, an agency system transfers operating risk from the principal carriers to their agents. Consequently, carrier returns are less sensitive to changes in system revenue since most costs are variable.
4. Credit risk — Since agents usually extend credit directly to shippers, the principal carriers' credit risk is also reduced. Thus, if a shipper defaults, the agent is often held responsible.
5. Market risk — Since principal carriers can legally adjust the revenue divisions for agents, owner-operators, and themselves, usually without regulatory interference, the principal carrier's market risk can be reduced.
6. Risk diversification — An agency system is itself a form of risk diversification. Given a fixed market area, an increased number of agents makes it more likely that the poor sales performance or bankruptcy of some agents will be counterbalanced by the superior sales performance of other agents.

All of these conditions create a stability in both the revenues and returns of principal carriers, and may create another regulatory incentive for carrier development of a large agency system. As previously outlined, some restricted carriers may have little alternative but to become agents for large unrestricted carriers. Thus, risk considerations mitigate against principal carriers obtaining maximum return potentialities, since reliance on

TABLE 3  
SELECTED REVENUE SOURCES AND PAYOUT RATIOS BY TYPE OF  
HHG CARRIER

Variables <sup>a</sup>	RESTRICTED AUTHORITY		UNRESTRICTED AUTHORITY
	Carriers with No Agents (N=134) Mean	Small Agency Systems (N=34) Mean	Large Agency Systems (N=35) Mean
A. <i>Carrier Revenue Sources</i>			
1. % of packing revenue to total revenue	16.6	12.5	5.1
2. % of warehousing revenue to total revenue	9.9	7.2	2.5
3. % of local revenue to total revenue	18.9	6.9	2.5
B. <i>Carrier Payout Ratios</i>			
1. % of commission agent fees to total revenue <sup>b</sup>	1.1	6.0	12.6
2. % of purchased transportation to total revenue <sup>c</sup>	19.6	35.5	57.1

Source: Computed from Interstate Commerce Commission, *Carrier Annual Financial Reports* (on file at I.C.C.).

- The differences between means for all variables are statistically significant at the .01 level.
- Primarily agent selling commissions.
- Primarily owner-operator hauling commissions.

agents reduces a principal carrier's risk. Similarly, a large agency system allows a carrier with broad and unrestricted authority to enjoy both higher returns and lower risk compared to carriers with narrow and restricted authorities.

#### IV. PRICE LEVELS AND SERVICE QUALITY

All of these industry conditions might not be of particular import if industry price levels and service quality were at efficient levels. As has been suggested, "the public might still benefit from the higher operating costs of restricted carriers as well as from the administrative costs of regulation itself if these costs are more than offset by the induced economies of utilization for the less-restricted carriers that become large firms."<sup>23</sup> However, regu-

23. Nelson, *The Effects of Entry Control in Surface Transport*, in *TRANSPORTATION ECONOMICS* 410, 414 (1965).

lation must also ensure that these large carrier savings are passed on to the public in terms of lower transportation prices and/or improved services.

#### A. PRICE LEVELS

Unfortunately, recent research on the HHG moving industry has provided evidence that interstate HHG prices are higher than what they would be in a free entry environment. Thus, Breen estimates that interstate HHG rates are twenty-five to forty percent higher than HHG rates for comparable intrastate movements.<sup>24</sup> Based on efficiency criteria, these elevated prices would be cause for concern.<sup>25</sup> However, service performance to shippers might also be aggrandized. As Nelson observes:

Although supporters of current regulation do not emphasize that the process inevitably leads to lower unit costs and rates, they do strongly claim that it results in improved service, greater financial responsibility to shippers, and greater public safety on the highways.<sup>26</sup>

While heightened carrier service could be more than what shippers would be willing to pay for if afforded other options, at least shippers might receive some benefit from the improved service.

#### B. SERVICE QUALITY

In this study, the service performance of HHG carrier groups with restricted and unrestricted authority was analyzed. A statistical comparison was made of the service performance of the non-agency carriers and small agency systems with restricted operating authority and the large agency systems with primarily unrestricted authority. The service performance measures related to timely pickup and delivery of shipments, correct estimation of charges, claim-free shipments, and expeditious handling of claims.<sup>27</sup>

Table 4 presents the results of the service performance comparisons for the carriers with restricted and unrestricted operating authority. Surprisingly, the largest agency systems with the unrestricted authority exhibit in-

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24. Breen, *supra* note 3, at 178; Breen, *Regulation and Household Moving Costs*, 2 REG. 51-54 (1978).

25. Until the passage of the HHG Transportation Act of 1980, the rates for all HHG carriers were virtually identical. See Breen, *supra* note 3, at 156. This may have been due to the existence of only two major rate bureaus in the industry (the Household Goods Carriers' Bureau and the Movers' and Warehousemen's Association of America) and the fact that almost all interstate Class I & II HHG carriers belong to one or the other of these rate bureaus. In the aftermath of the HHG Act, with its encouragement of innovative carrier pricing initiatives, a few carriers have begun to file independent rate applications. However, the HHG Act did not deal with regulatory entry controls or the rate bureau process.

26. Nelson, *supra* note 23, at 415.

27. Service quality can be viewed as a second output of the firm. See White, *Quality Variation When Prices are Regulated*; 3 BELL J. ECON. & MGMT. SCI. 426 (1972); A. LAMOND, *COMPETITION IN THE GENERAL FREIGHT MOTOR-CARRIER INDUSTRY* 77-78 (1980).

ferior service performance on all of the service performance measures.<sup>28</sup> Furthermore, all of these relationships are statistically significant. Since the majority of industry shipments are also handled by these unrestricted carriers, it is therefore difficult to see how consumers benefit from entry controls. Similarly, it is difficult to rationalize the continued market protection of unrestricted HHG carriers from open competition.

TABLE 4  
SERVICE PERFORMANCE MEASURES FOR CARRIERS WITH RESTRICTED  
AND UNRESTRICTED OPERATING AUTHORITIES

Variables <sup>a</sup>	RESTRICTED AUTHORITY		UNRESTRICTED
	Carriers with No Agents (N=160) Mean	Small Agency Systems (N=63) Mean	Large Agency Systems (N=35) Mean
<i>Service Performance</i> (Two-Year Averages) <sup>b</sup>			
1. % of shipments picked up on time	99.1	98.8	97.0
2. % of shipments delivered on time	97.6	93.5	84.3
3. % of shipment \$ charges correctly estimated (not underestimated)	84.9	85.9	80.3
4. % of shipments without a claim	90.6	90.8	85.1
5. % of claims settled promptly (within 30 days)	66.0	66.6	58.9

Source: Computed from Interstate Commerce Commission, *Annual Carrier Service Performance Reports* (on file at I.C.C.).

a. The differences between means for all variables are statistically significant at either the .01 or .05 level.

b. All service performance measures are two-year averages.

In summary, entry controls as manifested by HHG carrier certificate restrictions do not benefit consumers. Thus, not only do most HHG shippers apparently pay higher interstate transport prices in a regulated entry

28. See also A. ROBINSON, *HOUSEHOLD GOODS: AN ANALYSIS OF CARRIER PERFORMANCE*, 10-14 (1981) (ICC Office of Policy and Analysis). In a replication of this study's approach, Robinson utilized a minimum annual shipment constraint of 500 shipments. In addition, the results were broken down by type of shipper: individual (C.O.D.) and corporate transfer (national account). Basically, the same conclusions were achieved. It is particularly interesting to note that the corporate shippers were not found to receive *significantly* better service performance than individual shippers. Robinson concluded that agency systems are incompatible with effective carrier service performance.

environment, but the service performance is also inferior. In a broader sense, the study results provide no support for a "consumer protection hypothesis."

## V. DISCUSSION OF RESULTS

### A. POLICY IMPLICATIONS

This study revealed that large agency systems with unrestricted operating authorities provide inferior service quality to that offered by restricted carriers. Although these unrestricted carriers receive the greatest market protection from the I.C.C. and handle the majority of industry movements, the induced economies of utilization (operating efficiencies engendered by regulatory protection) are not passed on to the public in terms of improved transportation services. Since only the large agency systems benefit from the regulatory entry controls,<sup>29</sup> the study results would appear to justify either the complete deregulation of HHG moving services or the granting of unrestricted nationwide operating authorities to both carriers without agents and small agency systems. Thus, rather than I.C.C. "mandated" agency systems, these "carrier-agents" would then only serve as agents when they lacked operational supply capabilities. By promoting competition amongst carriers, it would be expected that such an open entry policy would benefit both consumers and restricted HHG carriers.

A policy question which remains, however, is whether the carrier-agents with new unrestricted authorities would then establish their own large network of selling agents without regard to service capabilities. As shown in this paper, the existence of a broad and unrestricted grant of authority has in the past been a major incentive for carrier development of a large agency system. Certainly, "carrier-agents" which no longer required their principal's authority would in most cases cease to be agents for that carrier. However, it is also possible that both carriers would then recruit less qualified agents to take full financial advantage of their operating authorities, to the detriment of industry service performance.

It would appear that only *totally* free entry would completely eliminate all regulatory incentives as opposed to operational incentives for agency participation and agent retention. In turn, by providing alternatives to small carriers, such an open entry policy would tend to reduce industry reliance on large agency systems for shipment movements. Preferably, an open entry policy would also be accompanied by relaxed entry controls for new

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29. Labor unions and equipment manufacturers are not a major factor in this particular industry when compared to general commodities motor carriers and air carriers. Furthermore, of all regulated motor carrier groups, HHG carriers have the heaviest reliance on independent owner-operators for shipment movements. See Morash, *Owner-Operators in the Household Goods Moving Industry*, 19 *TRANSP. J.* 17 (1979).

institutional possibilities, e.g., HHG brokers, shipment clearinghouses, etc.<sup>30</sup> Basically, these institutional possibilities could provide smaller carriers with alternatives to current agency system involvements or could "channel" shipments to the more price and service effective carriers as dictated by shipper needs.

### B. MOTOR CARRIER DEREGULATION

In the aftermath of the Household Goods Transportation Act of 1980 and the Motor Carrier Act of 1980, the Interstate Commerce Commission has refrained from removing "radial type" restrictions from HHG carrier certificates and has not adopted an open entry HHG policy. This regulatory posture appears to stem from the continued belief that HHG entry restrictions benefit consumers and shippers.<sup>31</sup> However, a number of Commission initiatives will indirectly weaken the agency system concept and have also provoked widespread criticism from the large agency systems. First, the Commission has eliminated the requirement that carrier-agents and their principal carriers maintain the same level of rates.<sup>32</sup> Thus, carrier agents will be able to directly compete price-wise with their principal carriers when the carrier-agents operate under their own certificates.<sup>33</sup> Secondly, the Commission has reinterpreted the definition of general commodities to also embrace household goods shipments.<sup>34</sup> Thus, in the future, general commodities carriers will be able to compete for HHG shipments and perhaps form cooperative relationships with existing carrier-agents, freight forwarders, or local cartage firms. However, it is difficult to predict the exact future impact of these new regulatory changes on HHG agency systems.

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30. Other specific examples would include travel agents, real estate firms, shippers' cooperatives, shippers' agents, and freight forwarders. All of these HHG market entry possibilities are presently circumscribed, to varying extents, by current I.C.C. regulations. See Morash, *Regulatory Policy and Industry Structure: The Case of Interstate Household Goods Carriers*, 57 LAND ECON. 551-55 (1981).

31. See, e.g., *Trend Continues Toward Eliminating HHG Agents That Hold Own Rights*, TRAFIC WORLD, June 1, 1981, at 35, 72.

32. 46 Fed. Reg. 16,200, at 16,212 (1981) (deletion of 49 C.F.R. § 1056.18 (1980)).

33. Based on the economic theory of regulation and its prediction of cartel-like behavior, see Posner, *supra* note 1, at 344-45, it is possible to conceive of HHG rate bureaus as enforcing rate uniformity amongst the limited number of nationwide carriers while agency systems are the primary mechanism for uniformity amongst the much more numerous restricted carriers. Thus, a two-tier system of membership control would exist. This paper also suggests that such a system of membership control impacts on service quality.

34. Acceptable Forms of Requests for Operating Authority, 45 Fed. Reg. 45,545 (1980) (proposed rulemaking); Acceptable Forms of Requests for Operating Authority, 45 Fed. Reg. 86,798 (1980) (policy statement).



## VI. CONCLUSIONS

This study has provided evidence that only the large household goods agency systems with broad and unrestricted "certificates of public convenience and necessity" benefit from Interstate Commerce Commission entry controls. Thus, neither carriers with restricted operating authorities nor consumers benefit from these regulatory controls. In the case of carriers with restricted authorities, only limited opportunities exist for increased market shares and for efficient carrier operations. Furthermore, despite their better service performance, these HHG carriers with no agents and small agency systems are not financially rewarded for the enhanced service. In total, these conditions may be a primary reason for industry reliance on large agency systems for shipment movements.

For consumer or shipper benefits, prior research has provided evidence that shippers pay substantially more for regulated interstate HHG moving services than for comparable intrastate HHG movements.<sup>35</sup> In turn, this study has provided evidence that most shippers also receive inferior service performance. Thus, the common theory that when rates are regulated, carriers will compete away excess profits by offering excessive services does not appear to hold true for this particular regulated industry. Similarly, the prediction of the "consumer-protection hypothesis" that HHG regulatory controls will result in at least improved service to the shipping public is also not supported by this study.

These results suggest a need for a completely open entry policy for HHG carriers. Similarly, the total elimination of *all* certificate restrictions for carriers with no agents and small agency systems also seems warranted. As outlined in section V, partial palliatives would not be expected to bring any benefits to consumers, but would rather exacerbate current distortions. Unfortunately, in the aftermath of the Household Goods Transportation Act of 1980 and the Motor Carrier Act of 1980, an open entry policy has not been adopted by the Interstate Commerce Commission. Such a policy position should be reappraised and instituted to benefit both consumers and restricted carriers.

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35. Breen, *supra* note 3, at 178; Breen, *supra* note 24, at 51.

